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ABSTRACT

The purpose of this study was to examine theories of reading comprehension and instruction as they relate to instructional practices in the middle grades. Following an extensive review of literature in the theoretical areas upon which reading programs are normally based--reading, language, learning, and teaching--specific characteristics within each area were identified, and a program rating instrument was constructed. This instrument was used by three teams of specialists to assess seven reading programs in classroom situations. The results indicated that the programs do not have consistent or coherent theoretical bases; what differences they do have are obscured by their internal inconsistencies and their large areas of overlap. Even though the program analyses did not yield any significant differences, four major theoretical positions were identified that might be useful in future discussions of reading programs. (A bibliography and six appendixes of data are attached.) (RL)

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REVISED
FINAL REPORT

Contract No. NIE-C-74-0140

Co-Directors: Kenneth S. Goodman
William D. Page

Reading Comprehension Programs: Theoretical Bases of Reading Comprehension Instruction in the Middle Grades

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Abstract

Final Report
NIE-C-74-0140: Reading Comprehension Programs: Theoretical Bases of Reading Comprehension Instruction in the Middle Grades

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5649 E. 10th St., Tucson, Arizona, 85711.

This study sought insight into the relationship of theories of comprehension and reading instruction to reading practice. Attention was on comprehension in the middle grades, considered to be a transitional period between beginning reading and' mature proficiency. In this study, it was assumed that reading programs involve a series of decisions made by their developers, either consciously or implicitly. The theoretical bases for designing reading programs were divided into three major areas: Reading, Language, Learning and Teaching. Within each major theoretical area, conflicting positions exist; any published reading program will relate to those positions in some way, whether or not the authors and editors have explicitly considered the relationship. A program rating instrument was developed to assess the relationship of the reading programs to these theoretical positions.

The results indicate that current programs do not reflect consistent coherent theoretical bases: what differences they have are obscured by their internal inconsistencies and their large areas of overlap. The differences between reading programs are sharpest at their beginning points. In the middle grade components of the programs, they become more similar. All provide some kind of connected texts to be comprehended. Analyses of the program ratings did not yeild any significant differences among the 7 reading programs studied. However, four major dimensions of theoretical positions were found. These may be useful in thinking about reading instruction.
Factor I: the Anti-Epistemological Approach. Treats language as observable speech and writing, avoids knowledge construction.
Factor II: Anti-Spoken Analogue Approach. Emphasizes knowledge construction, avoids oral reading, mentalistic psychology.
Factor III: Reader Initiated Approach. Factor IV: Message Reconstruction Approach. Both III and IV see language as rule governed, adopt cognitive views of learning, differ in view of the purpose of reading.

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PART 1

Reading Comprehension Programs in the Middle Grades

CHAPTER 1

Comprehension in Middle-Grade Reading Programs

Problem

This study seeks insight into the relationship of theories of comprehension and reading instruction to reading practice, and the potential effects of these programs on student achievement. Attention in this study is on comprehension in middle grades, considered to be a transitional period between beginning development of reading and nature proficiency. We are concerned with initial instruction only as it influences later focus on developing reading comprehension.

The state of middle-grade comprehension instruction and instructional programs in the United States today is ambiguous, and requires re-analysis and reformulation if our children are to fully partake of those aspects of life that rely heavily on insightful reading. This study seeks to remedy this state of uncertainty to some degree by reviewing the existing literature, formulating a paradigm of models of learning to read, and assessing programs in terms of the models. It also makes recommendations for further study, for proceeding with instruction, for generating new programs, and for structuring criteria for selection of materials and program thrusts by school people.

In a real sense we begin where Corder (1971) leaves off. He sought to evaluate programs for K-adult reading development. Corder documents in detail the great difficulty of effectively surveying or evaluating reading programs based on available literature in the field.

Problems with Identification and Description of Materials

In an attempt to categorize the research literature on "what methods, materials, approaches, equipment and procedures are used to teach reading in the United States and to what extent" (Corder, p. 61) Corder used a code system drawing on 1) Chall's (1967) classification system of teaching methods, 2) methods most widely described in texts and professional literature in the field, and 3) recommendations of the project's logic committee. Nine categories were used.

1. Meaning
2. Code emphasis
    a. synthetic
    b. analytic
3. Linguistic
4. Modified alphabet
5. Responsive environment
6. Programmed learning
7. Individualized reading
8. Language experience
9. Eclectic or author's own (Corder, p. 63)

Corder then surveyed programs to see where they fit. Unfortunately, he found the publishers', critics', and evaluators' uses of terminology inconsistent and confusing. Reports often failed to adequately describe methods used. "The common failing of definitions at this level of generalization (referring to many published sources) is their lack of enough specificity. Without the specification of attributes of these global methods on a number of particular dimensions, it is not possible to conduct an intensive search for knowledge " (Corder, p. 133). Thus, it becomes difficult to determine what the programs being described actually contain. In fact, according to Corder, "The only area of reading instruction where methods are clearly specified is in the area of remedial reading" (p. 65).

Teacher behavior is also poorly specified (Corder, p. 63). Although Corder's categorization criteria are based on author self-reports for determining the classification of materials (Chall, 1967, used this as her basis), and methods most widely described in the reading field, Corder is not satisfied with the results as the "methods represent quite different concepts."

> Some of the methods represent emphases (or perhaps philosophies); some represent classroom organization practices (e.g. individualized instruction); some represent ways of simplifying the graphemic system (in i.t.a., the media seems to be the method); and still others refer primarily to the kinds of materials used (e.g. programmed learning) (Corder, p. 64).

In the teaching of beginning reading almost all of the methods were used for each program. Most of the higher grade programs surveyed also dealt primarily with decoding skills, (Corder, p. 64), it is reasonable to assume that this overlap existed in these programs as well.

The classification criteria are not actually useful for sorting out distinctions, as they do not in fact represent different articulated points of view. Corder concludes:

> Were we to have applied more rigorous criteria to defining methods and restricted articles reviewed to those which described the teacher's recurrent patterns of behavior in any detail, we would have virtually nothing to report. Most of the authors of the research articles surveyed labeled their methods with terms that fit one or more of the categories above, although some indicated only the materials that were used in the experiment. There were few studies where teaching methods were explicitly described except for the projects which program teacher responses (e.g. the Southwest Regional Laboratory's Basic Concepts and Tutoring Programs) and some of the language experience studies where suggested activities for the teacher were carefully delineated (p. 63).

Problems in Attempting to Analyze the Effects of Programs on Student Achievement Based on Evaluation Reports from the Literature.

Jean Chall found the body of research evaluating reading programs to be "shockingly inconclusive" (Chall, 1967, p. 88). Corder strongly agrees. Journal articles which explained and described research investigations were especially sketchy. Thus, "... regardless of the quality of the research actually conducted, the only surviving and accessible report that can be found with reasonable dilligence is one that does not contain sufficient information so that the reader can judge for hinself the quality of the information" (Corder, p. 136).

Apparently, most of the research studies examined failed to clearly define their methods of operation and used labels which varied widely in their meaning. Nor did they adequately define the learner (sex, ability, SES, teacher characteristics, etc.) (Corder, pp. 118-9).

Additional difficulties involved the relationship of materials and teachers. One would have to monitor exactly what occurred within a classroom to determine how carefully the teacher was adhering to the program.

> Researchers investigating basal readers apparently assumed that the teachers in the study followed the Teacher's Guide and rarely specified the actual activities that were used in the classroom nor the degree to which manuals were followed (Corder, (p. 64).

Corder reports that well-known statisticians and researchers in the field of education have seriously questioned the validity of using experimental research methodology and statistics for classroom investigations. Rosenshine (1970) states:

> The lack of information on classroom interaction hinders evaluation of a single curriculum or different curricula because without this information one tends to assume that all classrooms using the same curriculum materials constitute a homogeneous "treatment variable." Such an assumption is questionable because teachers may vary widely in what activities they select and how they implement them (p. 280).

Normed tests are particularly criticized. Corder quotes

Lennon (1969) as observing "'when we consider that to such differences from test to test, there must be differences associated with varying content ... the issue of comparability, or lack of it, among the results of the various tests may begin to be seen in proper perspective'" (Corder, p. 36). See also Roger Farr (1969), Jaap Tuinman (1973), and Ralph Tyler (1974). As the editor of a large publishing house recently asked: "Are the tests testing what the programs are teaching?"

In summing up the various kinds of research studies examined, Corder notes that "all of the studies assume that a child's reading growth is a function of what is taught to him in the reading class. Other school and extra-curricular experiences are assumed to be equivalent for all of the students" (p. 12).

P. Kenneth Komoski, President of Education Products Information Exchange Institute (a "consumers union" for school systems and educators) says that as of 1971 well over 200,000 materials were being marketed to schools. Less than 10% of these educational materials on the market has been field-tested or empirically validated and only about 1% has been subjected to learner verification tests (Corder, p. 115). A most important question then becomes, "What are students being asked to read?"

In this study we've assumed that reading programs involve a series of decisions made by their developers, either consciously or implicitly. We have developed a paradigm that divides the theoretical bases for designing reading programs into four major areas: Reading, Language, Learning, and Teaching. Under these we have been able to subsume areas of decision making.

We define theory as a synthesis of knowledge of phenomena based on research designed to try to predict and explain as well as gather, organize, and analyze data. We have delineated areas of theory that have direct logical bearing on reading instruction. Within each major theoretical area, conflicting positions exist; any published reading programs will relate to those positions in some way even if the relationship is unexamined by the authors and editors.

Logically, reading programs should be created by carefully considering all relevant theoretical bases, creating criteria for dealing with all decisions, and then constructing a consistent and articulated reading program. Logically also, if this method of creating reading programs were consistently used, one should be able easily to a) classify extant reading programs, and b) infer from the pupil and teacher material the theoretical base.

In fact, reading programs seem to be constructed by a process that reflects response to tradition, imitation of aspects of programs of successful competitors, author and editor intuition, marketing constraints, current fads, public pressures, and disjointed teamwork. Furthermore, self-descriptions of programs by publishers are not always motivated by a desire to frankly state the key positions the program represents.

We had hoped to delineate clear alternatives by showing what consistent, coherent theoretical choices are possible; a set of really useful categories that could serve as a basis for comparing the effectiveness of really contrasting programs for reading comprehension. We had hoped to designate as examplars at least one current reading program for each theoretical alternative.

What we have found is that current programs do not reflect consistent coherent theoretical bases and that what differences they have are obscured by their internal inconsistencies and their large areas of overlap.

Furthermore, the differences between reading programs are sharpest at their beginning points. They appear to reflect alternate views of how instruction should begin more than anything else. They will focus initially on letter-sound relating schemes (phonics), or whole words, or children's language. Some programs assume a bottom up view of development which goes from parts to whole language. Others are whole or mixed. But in the middle grade components of the programs they become more similar. All provide some kind of connected texts to be comprehended. Whatever else they stress all must give some attention to comprehension of these connected texts.

If our paradigm can not separate and neatly classify entire reading programs, it can provide the critical dimensions for analyzing and comparing programs. It can delineate consistencies and inconsistencies. It can bring some order to the chaos Corder found.

The Paradigm

In developing the categories of the paradigm the attempt is made to include a wide range of alternative positions. In one sense it is possible to generate a very large number of coherent alternative programs by combining any possible position on any theoretical issue in any of the four areas; reading, language, learning, and teaching with any combination of positions in the other areas. But in fact, the four areas are related. A view of reading may be part of a view of language. A learning theory implies certain teacher roles and may require a structuring of reading and language tasks.

Still, in using this paradigm it is possible to consider which positions are compatible with which others and what decisions are required once others have been made.

The plan of this report is to briefly present the paradigm and then to use it to examine the middle grade components of several reading programs. That will make it possible to offer some conclusions about how comprehension is being dealt with in reading programs and what some potential alternatives may be.

In Part II we present a fuller discussion of each of our theoretical areas.

I. Reading

Every reading program must make some decisions based on how it defines reading. This may involve an articulated theory of reading as it relates to reading development or it may not. In any case decisions are made in these subareas.

A. Program focus: A most common base point in instructional programs is identifying a key unit and a form of response to it. We identify these possible focal points.

   1. Sounds, letters, and/or matching sounds and letters
   2. Word identification
   3. Word meaning matching to word shapes
   4. Syntactic reconstruction
   5. Meaning reconstruction
   6. Knowledge construction

   Programs may shift their focus in the middle grades or maintain it throughout the program.

B. Comprehension tasks: Within programs, tasks are used in instruction and/or in evaluation. Evaluation and instruction ought to employ the same task choices. They don't always do so.

   1. Subjective reporting
   2. True or false questions
   3. Multiple-choice questions
   4. Following directions
   5. Missing elements
   6. Questions about a passage
   7. Message recognition
   8. Message reproduction

C. Levels of comprehension: Comprehension is usually seen as moving from superficial to deeper insight. Some programs may build this progression into a hierarchical sequence; others integrate all from the beginning.

   1. Literal
   2. Inferential
   3. Evaluative
   4. Appreciative

D. Purpose for reading: Instructional programs treat reading purpose as having one of three sources. Some build a progression from text-determined to self-determined, others emphasize self-selection from the start, still others ignore the issue.

   1. Determined by text

   2. Determined by teacher

   3. Determined by student

E. Inquiry into print: Reading programs direct learners through the activities and experiences they provide to investigate print at many levels. Programs will differ in how this inquiry is keyed to focal emphasis, to planned sequence, and in degree of integration within connected text.

   1. Configuration

   2. Phonics

   3. Structural-word analysis

   4. Synthetic-word approach

   5. Dictionary skills

   6. Syntactic context

   7. Semantic context

   8. Pictures, diagrams, maps

   9. Environmental context

II. Language

Some, but not all reading programs put reading explicitly in a language context. All take at least implicit positions on issues of linguistic comprehension.

A. Unit of emphasis: Reading programs choose the units of emphasis they deem necessary. The extent to which bottom-up, top-down, or mixed views are chosen will influence units of emphasis, as will learning theories. Sometimes these will overwhelm language considerations.

   1. Letters

   2. Smaller than syllable

3. Syllable
4. Word
5. Phrase
6. Clause
7. Sentence
8. Paragraph
9. Story or passage
10. Chapter or section
11. Book
12. Content area

B. View of language: Implicit or explicit, examined or not, all programs choose a view or views of language.

1. Language is innate
2. Language is speech and/or writing
3. Language is a process based on communication of meaning

C. Meaning: Meaning is considered to adhere to, be represented, or be implicit in language at several levels.

1. Morphemic
2. Lexical
3. Synthetic fusion
4. Contextual

III. Learning: The third decision area derives from theories of learning, particularly of language learning and of cognition.

A. View of learning: A key aspect of any reading program is how learning is conceptualized.

1. Mentalistic
2. Behavioristic
3. Cognitive and field

B. View of the learner: Equally important is whether the learner is a passive recipient, an active participant, or interactive. The relationship of explicit teaching to learning is reflected in assumptions about the learner and the learner's involvement in attempting to read.

1. Active
2. Passive
3. Interactive

IV. Teaching

We focus here on the school, program, curriculum, and pedagogy all as part of the program plan to help learning take place.

A. Pedagogical approaches: By tradition, invention or careful design, all programs followed these pedagogical approaches.

1. Directed reading lesson in basal text
2. Directed reading lesson in content areas
3. Content units
4. Literature approaches
5. Technical and informational approaches
6. Language experience
7. Phonics
8. Word recognition
9. Total individualization
10. Partial individualization
11. Programmed materials
12. Structural linguistic approaches

B. Approaches to reading problems. Programs make choices about how to deal with problems in reading involvement.

1. Differentiation of instruction
2. Improvement of self concept of student

3. Promotion of social and psychological adjustment
4. Reorganization of the curriculum and/or instruction
5. Reorganization of personnel of the classroom, school, or district
6. Diagnostic: Test skills prerequisite to reading for deficits
7. Diagnostic: Test reading skills for deficits
8. Diagnostic: Test perceptual, motor, and neurological characteristics for deficits (Dyslexia)
9. Diagnostic: Assess language for deficit
10. Search for technological solutions to problems

C. Teaching role: All programs assign roles to the teacher; some by implication, some by script, some by prescription.

1. Teacherless programs
2. The teacher as a scripted performer
3. The teacher as a technician
4. The teacher as a source of wisdom
5. The teacher as a guide and monitor
6. The teacher as a clinical information processor
7. The teacher as a judge and policeman

D. Curriculum thrusts: Every instructional program relates to one or more curricular views. These are the broad guiding concepts of how curriculum is determined.

1. Cognitive process
2. Technology
3. Academic rationalism
4. Social reconstruction
5. Self-actualization

The Program Profile

The categorical system creates a program profile instrument which can be used to analyze programs. In the instrument, we separate pupil and teacher materials. Then we consider Tyler's four aspects of curriculum (Tyler, 1950): Objectives, experiences, organization of experiences, and evaluation for both student and teacher materials. In pilot use we found objectives, experiences, and organization, can be treated as a unit. Each paradigm sub-category is checked for that unit and evaluation in pupil and in teacher materials.

Instructional Episodes

Presented here are instances of reading instruction. Each exhibits characteristics that represented choices in theoretical areas of the Paradigm. We use the episodes here to demonstrate how the Paradigm relates to programs in the reality of the classroom. They are touchstones between theory and practice, and the mediating circumstance that connects them is the teacher's decisions within a program to carry out various procedures. The underlying theories may be tacitly assumed, casually accepted by using specific materials, or critically selected as means to identified, desired ends.

The episodes we present here represent descriptions of instruction conceived by successful teachers when asked to put their minds to the task of describing a few minutes of reading instruction. Following each episode is a brief analysis of the characteristics of the instruction based on the Paradigm.

Episode

The teacher of a fourth grade class introduces the topic of homonyms. Pupils are told to add one page to their word books, and to entitle the page "Homonyms." Below the title, pupils are directed to copy a definition from the chalkboard. The definition says: "Homonyms* are different words that sound the same. They mean different things. Homonyms are used in different ways and are spelled in different ways."

---

*Linguists would be more likely to call these homophones. The source of information in instruction and instructional materials may sometimes reveal the formative process of the program.

The teacher puts the following pairs of homonyms on an overhead projector: "principle" and "principal;" "stationery" and "stationary;" "capitol" and "capital." The teacher states the definitions of the words, discusses the definitions, and then puts an overlay on the overhead projector that displays the definitions. The homonyms are designated either noun or adjective, consistent with the definition on the overhead projector. The teacher tells the pupils that they know the difference between nouns and adjectives, but to look at previous notebook sheets entitled "Nouns and Adjectives." The teacher directs the pupils to copy the definitions of the words on their page about "homonyms." The pupils are told to add the homonyms to their "Bank of Word Cards," a pack of 3X5 cards with a word printed by the student on one side of the card, and a definition of the word written in cursive on the other side of the card.

The teacher passes out dittoed sheets. Pupils are told that the sheet is a "Word Exercise." Each sheet contains six sentences, each with a missing word. Pupils are directed to select one of the presented homonyms and write it in the blank in the appropriate sentence. The words are paired beneath the appropriate sentence and designated "noun" or "adjective." Each sentence in a pair requires a noun or an adjective in the blank.

The dittoed sheet is self corrected when the teacher presents the correct responses on the overhead projector.

Pupils with all correct answers are directed to write a sentence of their own using each homonym in preparation for reading the sentences orally into a conventional tape recorder. After tape recording their sentences, these pupils are directed to work in small groups with dictionaries to find additional homonym pairs, and to write and tape record their sentences.

Pupils with one to four wrong on the dittoed exercise are assigned to work with a tape recording machine that uses cards with strips of tape attached. Each card has on it two pre-recorded sentences for each of the six words studied. The teacher gives specific directions for operating both the conventional tape recorder and the card and tape machine. Pupils with five or six errors on the dittoed sheet are identified and directed to join the teacher at the table with two machines on it. A projector with a tachistoscopic attachment is used in a variety of ways to test these pupils. Included in the tests is the use of a set of vision screening slides. Another machine is used to produce sound and assess hearing. From a box of materials, the teacher gets a series of tests which includessome drawing, copying of figures, arranging blocks, tapping out rhythms with blocks, and repeating digits, among other things. The teacher records the results of this work and some pupils are referred for clinical assessment to determine the cause of their misperceptions.

Analysis of Episode 1

The focus of this lesson is on word-meaning recognition.

The thrust of the presentation of "homonyms" leads to a task of supplying missing elements. The level of comprehension is literal. Pupils use syntactical inquiry into print to fill in the missing elements in the exercise. Throughout the lesson the teacher determines the purpose for every activity. The emphasis on the word and its definition puts meaning into a lexical orientation, suggesting the view that language is speech or writing, a product. The words in this lesson are treated as tangible entities to be associated with single, specific definitions, suggesting a behavioristic view of learning. This view is reinforced by the predominantly passive role of the students. The teacher is a source of wisdom throughout the lesson; providing words, definitions, technical instructions for the operation of the machines. The use of machines is a part of each activity. The teacher is technologically dependent in his or her reliance on the perceptual tests.

Episode II

A fifth-grade class enters a portion of a media center with a small sign on a table that says, "Reading Center." A teacher sits at a desk working with library catalogue cards in another portion of the media center. The children proceed with almost no conversation to secure dittoed sheets from a pile on a table, cards from one colorful box, small notebooks from another colorful box, and in some cases small books from another. There are many more boxes neatly stored in the area, each containing notebooks, cards, and small booklets. We examine one of the cards.

The card has a mimeographed sheet stapled to it which contains the following: Box C4, Card 73, Book C4, Inference Sentences. Directions: Write your name, book, and card number in the spaces provided on your answer sheet. Now look at the examples on this card. Look at the words in the sentence. Look at each word one at a time. Then join the words together to get the meaning of the total sentence. Now look at the multiple-choice statement below the sentence, again considering each word. Choose the best sentence to answer the question. Write the letter of the sentence you chose in the blank provided on your answer sheet.

Examples

_____ 1. The old man shook in his boots when he heard the sudden noise.

a. The old man felt angry.
b. The old man felt afraid.
c. The old man felt happy.

_____ 2. The boys and girls clapped loudly as they watched the clown perform.

a. The boys and girls thought the clown was entertaining.
b. The boys and girls thought the clown was boring.
c. The boys and girls thought the clown was sleeping.

The answer to example number 1 is b. The answer to example number 2 is a. Turn to Page 20 of book C4. Do all of the exercises on Pages 20 and 21. Write your answers on your answer sheet. When you have finished, replace your book and turn this card over. Correct your answer sheet and write the number correct in the answer box in the upper right-hand corner. If you have a score of 8 or more correct, you have the necessary skills to go on. If you have less than 8 correct, get card number 73R from the C4R box and continue work on Inferences Sentences. You must get 8 or more correct before you go on to card number 74.

Analysis of Episode II

The exercises the youngsters face in Episode II emphasize semantic reconstruction as a program focus. The comprehension task involves a multiple-choice question and inference is emphasized as a level of comprehension. The underlying assumption is that the purpose for reading is initiated by the text. The category of inquiry into print that is emphasized is semantic context, but the sentence is the language unit emphasized.

The emphasis on written answers suggests the view that language is writing, a product of thinking. The approach to meaning is synthetic fusion as indicated in directions in the text. The view of learning is predominantly behavioristic in that the desired written responses are all the teacher seeks to promote. Note the directions to use the bank of flash cards. The learners are viewed as passive and neutral further supporting the idea that the teacher's concept of learning is behavioristic.

The pedagogical approach is predominantly a reliance on programmed materials. Apparently the student is not expected to make independent decisions. A diagnostic concept relating to reading skills seems to underlie the instruction to work on inference skills if a sufficient number of questions are not answered correctly. The prototype may be considered teacherless in terms of the teacher's role, and the curriculum thrust emphasized appears to be technology.

Episode III

A sixth-grade class completes a social-studies unit on community living. Several students ask the teacher to help them do further study with maps. They identify an exercise in their textbook entitled "Our Town Faces a Problem" included under "Suggestions for Further Study." A map representing a community, a key to the cartographic symbols, and a paragraph explaining a problem appear on the page. The paragraph reads as follows.

> A Community Faces a Problem
>
> The community shown on the map is growing fast. Shaded areas show where new houses will be built. Find the largest area of new houses. In miles, how far from the fire station will the center of this area be? In case of fire, the new homes will be in more danger than the other homes. The people of the community vote to build a second fire station. A committee is chosen to pick the best site for the new fire station. Two sites or places are picked. Some people want the new fire station to be near the village hall where the city officials have offices. See "Site A" on the map. Some people want the new fire station to be near the sports arena. See "Site B" on the map. Which site do you think is best? Why is the site you chose best? Where is the fire station in your community? Is your fire station in the best place? What does "best" mean in this paragraph? What does "site" mean in this paragraph?

The teacher agrees that class time can be used to work on the problem. The teacher suggests that the students know how to identify and solve the problem in the paragraph, indicating that this kind of work can strengthen the students' problem-solving ability. The students ask what the best way to solve the problem is. The teacher replies that they should use their god-given ability to understand the paragraph by thinking carefully about it. The students are encouraged to pursue the problem and ask for help only if they need it. The teacher comments that it is good for the students to struggle a bit with the problem and suggests that they be certain that they really need help before they ask for it.

After the problem is solved, the students ask if they can make a map of their community and locate a fire station site on it where they think it ought to be. The teacher agrees. At one point, paint is spilled on the map, the table, and the floor. The teacher settles the anxiety of the students by helping them to clean it up, getting them started on a new map, and commenting that everybody spills paint sometimes and we must all expect ourselves to make such mistakes. In starting the new map, the teacher remembers a map symbol template another teacher owns, borrows it, and shows the students how to use it. One student's mother seeks a conference and complains that the spilled red paint stained her girl's new dress. Later, the teacher comments to the principal that the children need to try out their own ideas and that the experience the girl had was worth more than the dress.

Analysis of Episode III

The kind of reading that Episode III focusses on is predominantly knowledge construction, but both syntactic and semantic reconstruction of the author's message is involved. The level of comprehension is evaluative, and the text provides questions about the passage and the map. The purpose for reading is set by the text because the problem directs the reading, but the students themselves elected to do further study thereby setting their own overarching purpose. Both of these purposes were encouraged by the teacher. Inquiry into print focusses on the category of pictures, maps, and diagrams, although other areas are involved.

Many language units require processing by students in this work, but the questions require dealing with the information from the paragraph which is the unit of emphasis. The teacher's reference to the student's "god-given ability to understand" suggests that he or she may harbor the view that language is innate. The approach to meaning is contextual. The paragraph develops the meaning of "site" and the term is used on the map.

The view of learning suggested by this prototype appears to be mentalistic. The children are active in their initiation of further study. The teacher encourages their activeness, apparently operating on the assumption that they are basically driven by good intentions. A reference is made to strengthening their already existent problem-solving ability, suggesting a concept of faculty psychology. This view is also apparent in the teacher's comment suggesting that the children will benefit by struggling a bit with the problem.

The pedagogical approach involved here involves a technical informational approach in that the cartographic symbols are a major focus of the lesson. Further, the map itself seems to have captured the interest of the students and the teacher encourages it. The content-unit approach is involved to some degree because the lesson is an outgrowth of a unit on community living in the social-studies area. The teacher's comments on the way the students worked on the problem and the incident involving spilled paint, suggest that the promotion of social and psychological adjustment is a key approach to reading problems. The role of the teacher throughout the prototype is clearly a guide and monitor. The curriculum thrust focusses predominantly on self actualization because the students are encouraged to pursue a task they set for themselves. However, overtones of social reconstruction are evident in the problem itself. Locating the best site for a fire station is a concern of a good citizen. Similarly, aspects of cognitive processing are evident in the teacher's view of learning and skill development.

Conclusion

These episodes have been included here to put the programs we will now review into perspective. No published program short of a teacherless one can control completely what happens in the classrooms in which it is used. That means that the classroom realities can't easily be predicted from the program and that classroom experiences will differ greatly within programs.

Teachers can considerably alter programs by stressing or not stressing aspects of them.

CHAPTER 3

Profiles

Seven basal-reading programs are examined here to demonstrate the applicability of the theoretical classifications discussed in this report (See Appendix B for titles). The Program Profile Instrument (Appendix A) is applied to these series to determine the theoretical categories represented in the different programs. Profiles of the programs are presented in the Program Profiles (Appendix C). The numbers in the Profiles represent degrees of presence of the characteristics in the teacher's and pupils' materials. "3" indicates that a characteristic is predominant in the materials. "2" indicates regular occurrences of the characteristic. "1" indicates the characteristic is present to a minimal degree. "0" indicates that there is little or no occurrence of this characteristic.

The teacher's materials are rated separately from the pupils' materials permitting a comparison. The teacher receives a separate set of materials to which the pupils have no access. The pupils perform tasks which the teacher assigns. The profiles reveal that some series give teachers a description of their role which differs from the actual implementation of the program. This is especially significant when it is realized that the teacher's guide may be the only source of information about reading instruction available to the teacher.

Findings based on the review of the series are discussed in this section of the report. This section of the manuscript provides insights into the application of the profile instrument to a reading program as well as into the individual programs reviewed. It also provides a juxtaposition of the series' presuppositions in the four theoretical areas: reading, language, teaching, learning.

The programs represent various combinations of underlying constructs footed in theoretical positions. The programs may have been created without conscious realization of the fact that as activities and questions were included assumptions about reading, language, teaching, learning were being made. The program planners may have been aware of this relationship between the specific elements and general features of their program. They may have intended that their program be eclectic, a combination of constructs. Or they may have planned to follow one theoretical idea throughout materials which would represent one philosophy of curriculum. We cannot determine the basis on which these materials were prepared. We can however examine the materials to identify the constructs within them. This is what the following profiles accomplish.

Combine the findings in any of the four theoretical categories and a pattern emerges. If the sub-categories demonstrate presuppositions which do not fit the larger profile of the series, then the program is inconsistent. This profiling process makes no judgment about the inconsistencies which are revealed; it only indicates the features within the theoretical framework of each program. Potential users of the series must compare these features with the purposes of their instruction.

In the following discussion of the reading programs, the four theoretical areas are divided into two sets of interrelated constructs. Reading and language are related obviously in that the print read is a form of language, and that reading is a language process. Teaching and learning are related in that the teacher deals with learners. If the role constructed for either teacher or learner does not complement the role of the other participant in learning, the program will contain inconsistencies. The following sections should be read to discover the consistencies and inconsistencies within each of the programs as well as the theoretical diversity which the programs represent. There are common characteristics among the series, but each series is unique in its specific combination.

Overview

The programs are used for the same purpose: the instruction of reading in the intermediate grades. Although programs reviewed may include materials for the primary grades as well, the focus of this study is the intermediate grades. Materials reviewed are those specified by company representatives as the "basic" program. Supplemental materials are not necessarily treated, but in some instances we comment. Options within what a company designates as the basic program are treated as part of the basic program. Options suggested in the basic program, but requiring the purchase of specific supplemental materials, other than tradebooks and writing materials, are treated as supplemental rather than basic.

Program I

Program I is organized into thematic units which are divided into sub-units. Each unit contains several sections. Included are sections on literature, social studies, mathematics, and science. Pictures accompany almost every passage. Often these pictures are an integral part of a story. In some instances, pictures provide a basis for development of skills in interpreting pictorial information. Passages do not exceed four pages in length. Each passage consists of a story with questions about it. The questions may refer to other pasages within the unit, or to other units in the book.

Both the activities and the student's attention are directed to a variety of reading skills required for reading text in different subject areas. The program uses questions to develop skills needed to deal with each of the subject areas. The focus on subject-matter related skills appears to be a unique focus. The consistent use of skills related to variations in reading different materials is an outstanding characteristic of this series.

Program II

Program II is organized into three levels for each of grades 4, 5, and 6. The selections are arranged into a loose topical organization. The content varies widely in form from poetry to how-to-do-it articles. Studybook exercises that accompany the selections reinforce the skills emphasized in the lesson or section. The program uses a variety of means to make the books visually interesting. Diverse media ranging from cartoons to photographs are used in the text. A chart listing the skills, understandings, and attitudes which are present at the particular level appears in the front of the Teacher's Edition. An index gives the page location of key words and the skills emphasized in the text.

The most unique characteristic of Program II resides in its philosophy. Reading is seen as an extension of natural language development. Reading is a personal and a social form of communication. Reading is experience extended. The last phrase most closely encapsulates the unique philsophy of Program II.

Program III

Program III for the middle grades contains one text and one workbook for each grade level. Teachers' editions contain guides divided into six booklets. Booklets are boxed for each level. Two books of evaluation masters for dittoeing are provided for each level. One is a book of pre-tests. The second is a book of post-tests, and achievement tests for each unit. Supplementary paperbacks are provided. Study guides are consistently provided, and film strips are available. A summary of introductory booklets is published under a separate title. A booklet containing a detailed index of skills and materials is provided for each level.

Program III is unique in its total language approach, and its structuring of content materials to include examples of masterworks of art, literature, and non-fiction.

Program IV

The pages and covers of Program IV are full of colorful pictures. The materials for the student consist of a basal reader and a skills workbook. The skills handbook holds six sections, each based on one of the "strands" of skills in the program. The pupil is expected to complete these pages as they relate to individual units of the reader.

A correlation between skills handbook and reader is elaborated in the teacher's edition of the handbook. The teacher's guide to the basal reader discusses use of the skills book, indicating that the skills book is essential to the total program. But the lesson plans in the teacher's guide to the basal reader do not refer to the workbook pages. It seems possible to use the reader without the skills handbook. A book-length story is another feature of the program. Each level contains one book-length story at the end of the student reader. Since this feature is part of the reader itself, it is a distinctive and integral part of the program.

The major characteristic of Program IV is that it encompasses an enormous number of options. So many skill strands are part of this program that the teacher might have to spend inordinate amounts of time to develop them all. Another characteristic is the emphasis on words as vocabulary items and structural analysis exercises. This emphasis on isolated words limits the time spent in activities related to the reading of stories and passages.

Program V

Program V is unique in that it prescribes a literature approach to reading. The stated purpose of the series is to teach children to read and write independently by first grade, to provide selections of literary quality and rewarding content, and to correlate a language arts program from grades one through six. The program is designated for the average class and purports to allow for individual differences. The lessons are intended to stimulate the bright students and to help the slower student develop more complex reading and writing skills. The foundation program for the intermediate grades consists of one reading text per student and one teacher's edition. The teacher's edition includes guided lessons and materials to develop each story as well as directions for developing a variety of language activities.

An outstanding characteristic of Program V appears to be its use of literature. The series contains numerous stories about ancient cultures as well as modern classical literature.

Program VI

Program VI readers are primarily for older students reading below grade level. Each book consists of ten thematic units. Provided in each unit are both literary forms and informational articles. Word attack, vocabulary, comprehension, and study skills are provided for in a clearly visible, spiral development. Frequent assessment of progress of these skills is provided through evaluation materials which are presented for every two units.

The most outstanding characteristic of the program is its thematic unit approach. There is a balance maintained among literary forms and a variety of informational articles.

Program VII

Program VII is designed for students living in today's pluralistic metropolitan society. Materials for grades 4, 5, and 6 include provisions for review and remediation of primary-grade skills in a skill maintenance component. The authors state that they seek to meet four criteria with this program. They want the program to reflect 1) modern research in readability, and 2) the characteristics of a pluralistic society. They seek to provide a 3) review of phonemic and structural analysis skills in the intermediate-grades portion of the program, and they seek to 4) differentiate instruction using the materials of the program.

Each book is divided into six units. Each unit reflects a different content theme. Throughout, the skills are reviewed in optional "extra" sections of the pupil text. There are separate skills workbooks and placement tests which are designated supplementary components of the program. The student text and the teacher's manual are designated as the basic program. These contain no provisions for evaluation. A skills book and mastery tests contain provisions for evaluation, but they are supplementary. If the basic program is purchased, exclusive of supplementary materials, teachers must make their own provisions for evaluation.

Program VII is unique in two ways. First, the content of the stories reflects a modern, urban, pluralistic society. Second, readability principles have been applied in selecting and writing the stories.

CHAPTER 4

Reading and Language Program Characteristics

Language and reading, as we ordinarily think of it, are inseparable. Here, in this chapter, we treat the areas of language and reading with respect to programs reviewed. The program reviews under "Reading" deal with the focus of the program, comprehension tasks, levels of comprehension, the way the purpose is assumed to be determined, and the mode of inquiry into print. The reviews under language focus on the unit of language emphasized, the underlying view of language, and the way meaning is treated.

Program I

Reading

The authors stress the need for reading skills that go beyond the literal level of meaning. They emphasize the point that while the pupil must be able to get information from the page, it is most important to interpret this meaning, to have the skills necessary for critical and creative reading. To some extent, the activities develop these skills. However, the constraint of using materials from science, social studies, and mathematics on an elementary level seems to require extensive use of meaning reconstruction tasks.

All of the comprehension tasks listed in the Program Profile Instrument (See Appendix A) occur in Program I except subjective reporting. Following directions, supplying missing elements, message recognition, and message reproduction are all represented extensively. The comprehension tasks focus on the elements most common to specific kinds of content area. For example, the questions about history articles stress cause and effect relations, and the science-passage questions require problem-solving responses.

In both the teacher's manual and the activities for the pupil there is an almost equal emphasis on literal, inferential, and evaluative levels of comprehension. The elementary science, mathematics, and social-studies topics of the passages lend themselves to factual questions. Factual questions in Program I tend to be literal questions in evaluation materials for the pupil.

In Program I, purpose for reading is almost exclusively determined by the text. Short sections which appear just before a passage tell the pupil about the skills that should be applied in reading that passage. The questions after a passage usually reinforce these skills. The teacher generally follows directions, except in the case of a remedial reader. The teacher's manual gives general procedures for remedial work, but the details for handling each passage at the remedial level are left to the discretion of the teacher. Open-ended questions or topics for discussion follow most passages, but these are optional.

Of the nine categories in IE of the Program Profile Instrument (See Appendix A) only configuration and environmental context are not represented. Phonics and structural word analysis are repeatedly used to teach word-attack skills. Dictionary skills are developed frequently to introduce and reinforce new vocabulary related to the different subject areas discussed in the passages. Skills involving pictures, diagrams, and maps are related to these subject areas, and Program I includes them.

Language

The development of skills for reading content area materials is the major concern of Program I. Four subject areas; literature, social studies, science, and mathematics; are represented in passages in each unit. The units are based on themes which are general enough to include aspects of these subject areas. In activities included with each passage, the pupil is directed to get information from each paragraph. Once the main idea, supporting details, pronunciation and definition of vocabulary have been identified, the pupil is assumed to be ready for more complicated tasks of inference or evaluation.

There is no clear evidence indicating a definite view of language. There is some indication that language may be viewed as speech and writing in that the student activities entail speech and writing activities.

There is a dual emphasis on both lexical and contextual meaning. Frequent focus on dictionary skills and vocabulary exercises give importance to lexical meaning in materials for both pupils and teachers. The questions after each passage are based on information which the pupil can determine through the use of context analysis. Focus on smaller units of language such as syllables are viewed as a necessary step, but one which is not to be dwelt on.

Program II

Reading

The program focus of Program II is on meaning reconstruction and knowledge construction. The questions that the students encounter in the text and from the teacher are designed not only to develop the ability to answer literal questions but also to draw conclusions as an aid to get meaning from print. Sound or letter imitation, word identification, and word meaning recognition are used only to a minimal degree.

The predominant task used to get at comprehension is questions about the passage. These questions are provided in the teacher's guide. Multiple-choice questions, message recognition, and message reproduction are used frequently in the workbook exercises. Subjective reporting is used to a significant degree. True or false questions, following directions, and missing elements can be found in the lessons, but they are not emphasized to a significant degree.

The four levels of comprehension; literal, inferential, evaluative, and appreciative; are stressed strongly in this program. The lessons help the student develop the ability to recall such literal items as facts, details, and sequence of events. The lessons emphasize drawing conclusions from the story, substantiating the conclusions, and making inferences.

Found throughout the program are questions requiring judgments as to whether the selection is fact or opinion, and realistic or fanciful. The author as an authority also comes under scrutiny as the student engages in a range of activities to critically evaluate the selections. The appreciative level is also important for the student examines the features of narrative writing and the stylistic elements used by the authors.

Program II seeks to have the student set the purpose. Frequently found in the teacher's materials are suggestions indicating pictures to set the purpose. Implicit in this program is the idea that the pupil should become an independent reader and read for individual purposes. The text plays an influential role in setting purpose by the headnotes contained at the beginning of the stories and by the questions it suggests that teachers ask the students for guided reading. The teacher plays a minimal role in that the teacher is not bound to the program and may offer his or her own suggestions. The text's suggestions are options. The teacher's role is de-emphasized in setting the purpose for reading.

Semantic context and syntactic context are the predominant mode of inquiry into print in Program II. The program treats them as one and refers to them not individually, but together as context cues. The student is urged to return to the story and use these context cues when unfamiliar words are encountered. The use of pictures, diagrams, and maps are stressed but not to the same degree as the context cues.

Dictionary skills are taught but they are to be used as the last resort if the context cues can't provide the information needed. Phonics, structural word analysis, and synthetic word approach are minimally found in the program. No direct evidence was found for the use of configuration or environmental context.

Language

Program II treats language primarily as a process. This view is consistent with its basically cognitive thrust. The ongoing relationship between language and knowledge is evident. A strong emphasis is also given to language as speech and writing. Language as a measurable and observable entity is given stress in the workbook exercises. The nativistic view of language is occasionally evident, but not dominant. These conclusions are based on statements and activities presented in the teacher's guide and pupil tests.

The focus of Program II is on getting meaning from print. The language units that are emphasized to a significant degree to aid in this task are the phrase, sentence, paragraph, story or passage, and the chapter or section. Questions in the teacher's and student's materials probing the student's understanding are designed such that the student must return to a particular phrase, sentence, paragraph, or the entire story in order to understand the author's message. The chapter or section is emphasized, for example, by questions asking students to synthesize their knowledge and compare and contrast two characters in different sections. Letters, units that are smaller than a syllable, syllables, and clauses are not stressed as important units to be utilized by the student in extracting meaning from print. The word is an isolated unit. It is not used to any significant degree in this program which emphasizes contextual meaning. The book and content area appear minimally in this program which is made up of stories based upon topical organization.

Meaning is a dominant concern in Program II. The approach of this program towards meaning is contextual. The thrust is towards the full context of the author's writing. The units of emphasis; the phrase, sentence, paragraph, story, and chapter are all called upon to provide insight into the author's message. Morphemic and lexical meaning, therefore, are only minimally used by the student. No evidence of synthetic fusion was found.

Program III

Reading

Described as a total language approach, Program III claims to relate reading to the whole of experience. Texts are organized around six basic concepts comprising the content areas: children's literature, classical literature, fine arts, language, science and the social sciences.

Detailed lesson plans for teachers are organized around systematic questioning concerning the text and children's experience; and systematic activities using six reading skills based on language units labeled phonology, morphology, syntax, semantics, and rhetorical. Literal and interpretive comprehension are included within these skill areas.

The focus of Program III in the student texts regarding comprehension is on meaning reconstruction and knowledge construction, though only the former is evaluated. However, all six categories of the instrument are represented in the lesson plans of the teachers' guides. The lessons are said to be built around the principles of phonology· of sound structure; semantics or meaning assigned to language units; and rhetoric or analysis of literary forms. The skills exercises and text and teacher questions carry through with these principles.

Comprehension task emphasis is on subjective reporting concerning passages or messages. "What do you think ..?" and "Why did ....?" are the most usual reflective questions in the text, and very common in the guided reading section of the teachers' guides. Multiple choice, following directions, and missing elements are question types observed on the evaluation tests.

All levels of comprehension are stressed in the system. Repeated directions for asking literal and interpretive questions are given in the teachers' guides. Reflective questions at the end of every selection in the student texts ask for evaluative interpretation. The evaluative and appreciative levels do not appear to be evaluated, however. The appreciative level is seen in teacher questions in the lesson plans and in the general format of the student texts.

Purposes for reading are determined by the text almost exclusively. The only leeway given the teacher is in the selective decisions made regarding the material to be presented. Very detailed lesson plans with questions, answers, and directions are given the teacher in the guides. Occasionally the guide, in the guided reading section, directs the teacher to extend the students' experience by asking for volunteers to research an area. Presumably this would involve students' formulation of their own purpose. Extensive enrichment activities for extending students' experience are given for each lesson plan.

Semantic context is the predominant mode of inquiry into print, with emphasis also on structural analysis, syntactic context, and some attention paid to phonics and dictionary skills and picture cues. Reflective questions in the text all ask for interpretation and evaluation of meaning, as do teacher questions in the guides. Skills activities in each lesson plan ask for morphological, syntactical, and structural word analysis.

Language

Program III is described as a total language approach which explores written English from the five vantage points of phonology, morphology, syntax, semantics, and rhetoric.

All units of language listed in the Program Profile Instrument are represented in the series to some degree. The reflective questions for the students deal with the story or parts of it. Skill development activities in the workbook and largely in the teachers' guides deal with morphemes, words, some sentences, and phrases. The introduction to the material for teachers and a summary of the system describe how selections revolve around themes in content areas. This claim is not obvious anywhere else in the program though there are many excerpts from literature, and reproductions from the world of art.

Language is viewed as a process based on meaning. Rhetoric is produced by an interaction between the writer's thought, sensibility, command of language, and his or her response to whatever leads to undertaking the writing task.

The predominant focus of meaning in Program III is contextual meaning. The full context of the author's message and its implications for the reader are stressed in the reflective questions in the student texts and in the teacher guides. But morphemic and lexical meanings are treated in the skill development exercises of the lesson plans, and surprisingly, the evaluations place at least as much emphasis on these meanings as on the contextual.

Program IV

Reading

There are two separate areas of program focus emphasis in Program IV: the determination of the meaning of words and the determination of the meaning of paragraphs and stories. The exercises and evaluation sections in each unit of the program reflect this emphasis. The majority of the activities and test items deal with the comprehension of either individual words or whole stories. Four of the six program focus categories in the Program Profile Instrument (See Appendix A) are present. The dominant feature is meaning reconstruction. Word meaning recognition and knowledge construction are present to a high degree. There is little evidence of emphasis of syntactic reconstruction and no evidence of sound or letter imitation or word identification.

The eight theoretical categories of comprehension tasks are present. Questions about a passage, message recognition, and message reproduction are the dominant features in the four categories for teachers and students. Most of the comprehension tasks in Program IV are in the form of questions about a story. In addition to providing information based on reading a passage, students are required to summarize and restate stories. Multiple-choice items are a principal measure of comprehension.

Although all four categories of comprehension levels are present, Program IV emphasizes three: literal, inferential, and appreciative. There is a greater emphasis on what Program IV terms "literary understanding and appreciation" in the teacher's guidebook than there is in the pupil's book or in the test items.

The concept of reading in Program IV is that it is a combination of skills. The index to the program indicates the extent to which the program defines the specific skills involved in reading. The abilities measured by the Program IV mastery tests indicate the areas which the program emphasizes. An appraisal of the abilities measured in the mastery tests indicates an emphasis on structural word analysis as the principal means of decoding words. Other areas of emphasis include literal and inferential comprehension of stories. Although "creativity" is a "strand" with many references in the index, it is not an extensively measured mastery task.

The text is assumed to be the determiner of the purpose for reading, both for the teacher and the pupil. A statement of purpose for reading precedes each story. The text also states a purpose for doing each of the skills development activities in the pupil skill book. There are few instances in which the teacher or pupil have an opportunity to determine a purpose for reading.

Program IV stresses the structural analysis of words. Prefixes, affixes, and root morphemes are topics of activities and test items in every unit. Occasionally this study of morphemes provides for a synthetic approach to words. Although the pupils also learn to use the dictionary, the use of the dictionary is not part of most of the evaluation materials.

Language

Program IV emphasizes three language units: the affix or root morpheme, the word, and the story. A vocabulary list and the reading of a story are part of every lesson plan.

The structural analysis of words is also part of the skills development in every unit. Each level in Program IV ends with a "book-length" story, and the series refers the teacher and pupils to other books they could include in their reading program. Therefore, the book is part of the program, although it is not an essential activity in each unit.

Program IV presents the view that language is writing. This view is evident in the program's emphasis on printed language. Emphasis is not on preparing pupils to speak or listen more effectively. The series focusses on determining the meaning of printed words which are treated as objects to be decoded according to rules and patterns. Although introductory material in the teacher's edition suggests that language is innate, this theory is not evident in any of the teacher lesson plans or pupil materials.

In Program IV, the pupils learn to determine the meaning of words primarily in three ways: 1) from structural analysis of their morphemic structure; 2) from dictionary definitions emphasizing lexical meaning; and 3) from the context in which words are used. The focus on morphemes is evident in skills activities in every unit. Every story lesson introduces words which the students look up in the dictionary or glossary. The emphasis on context is evident only in the evaluation materials in which pupils must determine the correct word to use.

Morphemes are prominent in the view of language in Program IV. Structural analysis is the major thrust of vocabulary and decoding activities. The other major form of language encountered is the story or passage. However, even in reading a story or passage the students are alerted to the use of affixes. Preview and review activities for many of the selections in the reader emphasize the affixes used.

Program V

Reading

Program V emphasizes word identification and word meaning recognition. The student regularly participates in exercises which deal with irregular phonemic-graphemic correspondences, and also frequently practices related vocabulary drills. Considerable attention is also given to sound-symbol correspondences which are useful in decoding whole families of words.

Syntactic reconstruotion is evident, but not extensively implemented. Meaning reconstruction, as well as knowledge construction, is more clearly observed and is significant to the program. Each lesson deals with numerous evaluative questions designed to assist the student in drawing conclusions about the author's message.

The text primarily determines the purpose for reading. The teacher's edition contains a prepared paragraph designed to stimulate discussion and add incentives for reading a story. The purposes for reading are determined to some extent by the teacher. The teacher has the option of reading a story to the class if the content proves too difficult or to provide an example of fluency or to stress a particular intonation pattern. The pupils' purpose appears to be based on suggestions from the lesson itself. Occasionaly, the text contains just a section of a story, and the self-directed student can continue the reading in another source.

The major emphasis of Program V with respect to comprehension tasks is on subjective reporting, questions about a passage, and message reproduction. True or false questions, message recognition and those stressing following directions are utilized, but not consistently. There is little evidence of any multiple-choice or missing elements throughout the series.

Each of the four levels of comprehension appears to have an equal and integral part in the student's text. The lessons examined all contain several questions on a particular level. In addition, the teacher's manual contains additional questions to probe further understanding and depth of meaning.

Phonics is an important concern of Program V. Much emphasis is given to structural word analysis, the synthetic word approach and syntactic context. These areas are treated in the correlated language arts section. The class practices these reading skills through a dictation activity. Six sentences from the story are dictated and then copied on the board for the class to correct and review. The sentences are examined as to word structure and syntax.

Some dictionary skills, pictures, maps, and diagrams are incorporated in the teacher's manual. Semantic context is not a major concern in either the teacher's edition or the student text. There is little evidence of focus on configuration in the program.

Language

Program V includes a focus on the learning of a printed code for the spoken word, but its major emphasis is upon the unit of meaning. This unit is contextual, and it may include many aspects of language which pupils will use to determine meaning through context.

Program V maintains the view that language is speech and writing. The language arts program provides daily experiences of both within each lesson. The daily writing exercises strengthen the student's language acquisition. Group discussions generated by the text improve the student's ability to generalize and discriminate.

Lexical and synthetic fusion are highly characteristic of this series. Much emphasis is given in associating a word and its meaning. Vocabulary exercises of the program direct the student to the dictionary definition and usage. The learner then must distinguish its meaning within a sentence.

Program V's correlated language arts program provides strong emphasis on the word, phrase, sentence, paragraph, and passage. Bi-weekly, students view sentences taken from their own written work and analyze spelling and grammar. This process allows the students to see their errors, correct them as a group and then apply their knowledge by reconstructing the sentences correctly.

Syllables and units smaller than syllables are treated in the weekly spelling list. The intermediate spelling lists focus on a particular irregular sound-symbol arrangement. These lists and guided lessons are present only in the teacher's edition.

Program VI

Reading

Reading, as viewed in Program VI, is a process which involves the mastery of sequentially structured skills such as word attack and comprehension. Skills are to be applied to all types of reading in various subject areas.

The primary focus is on meaning reconstruction or literal comprehension of the author's meaning. There is emphasis on knowledge construction or inference. However, this is found primarily in the teacher's material. The tasks throughout all three of the students' texts basically require literal responses. Inference is stressed in the teacher's manuals by the questions suggested from before and after each story or passage.

All of the comprehension tasks except subjective reporting are represented in this series, five of which are represented to a high degree. The teacher's materials give greatest emphasis to questions about a passage. Message reproduction is stressed to a great extent especially in the fifth and sixth-grade level materials. The passages in these books are more technical and the questions ask pupils to restate information from the texts.

Although literal comprehension is the primary focus of the program, especially in the questions which are part of the pupils' materials, the teacher's materials stress inferential comprehension as well. The questions provided for the teacher to use to initiate discussion and to check on pupil comprehension require inferential responses. Some questions and statements included in the fifth and sixth-grade materials also deal with evaluation and appreciation of the passages.

The purpose for reading in Program VI is almost exclusively determined by the text. The teacher's manual indicates the purpose for reading each passage, which the teacher is to communicate to the pupils through questions. Statements of purpose are also included occasionally in the pupil text. There are some options as to the use of questions before a passage which are left to the teacher's discretion.

Four of the nine categories of inquiry into print in the Program Profile Instrument (See Appendix A) are emphasized to a high degree in this program. Practice exercises develop these approaches to inquiry into print, and these skills are reviewed in the exercises involving a scoreboard. They are consistently represented throughout all three levels. There is no evidence indicating the use of configuration or environmental context.

Language

There is no explicit statement about language and its relationship to reading in Program VI. One might infer from the materials that language is seen as a product observed in speech and writing. Written and oral responses are required by pupils throughout the program.

The unit, the story, and the word are all employed to a high degree. The unit is comprised of various stories or articles centering on a specific theme. The word is emphasized through vocabulary exercises before each story or passage and various exercises afterwards.

There is a slight indication that language may be viewed basically as speech and writing since the major form of pupil participation in the program is through their speech and writing, which is part of each unit and which is measured in the scoreboard exercises.

Meaning has no single primary focus. Three categories of meaning; lexical, morphemic, and contextual, are represented in the activities of the pupil texts and the measurements of the teacher's evaluation materials. The teacher's manuals give less attention to morphemic and lexical meaning than the pupil exercises and tests. There is not strong evidence for the use of synthetic fusion.

Program VII

Reading

The focus of Program VII is predominantly meaning reconstruction and knowledge construction. In instance after instance, the teacher poses questions to which the students are asked to respond. These questions can be answered if the pupils can reconstruct the author's message. Knowledge construction is evidenced by instances of requiring students to relate the reading selections to their real or imaginary experiences. Word-meaning recognition is present to a high degree. Before each selection, the meanings of words are determined. There is evidence of syntactic reconstruction.

Most of the comprehension tasks in Program VII are in the form of questions about a story found in the teacher's manual. Students are asked to provide information after reading a passage. In addition, students are asked to identify or recognize passages and to reproduce messages in writing or in oral methods including role playing and dramatizations. There are no explicit evaluative comprehension tasks present in the students' texts. The authors recommend the use of their supplementary instructional activity books and learning mastery tests to reinforce and evaluate skills.

The four levels of comprehension are present: literal, inferential, evaluative, and appreciative. Program VII stresses literal and inferential levels, but there are many instances which require use of the higher levels of comprehension skills. Pupils are required to analyze situations, evaluate motives, predict outcomes, and compare and contrast information.

The purpose for reading is assumed to be determined predominantly by the text. Primary and secondary objectives are provided for each selection. Students have an opportunity to think of reading purposes after reading the introductory unit paragraph. The teacher determines the purpose for which the unit may be used.

Program VII stresses phonics, structural word analysis, the synthetic word approach, and use of syntactic context to a high degree. Sound, word, and meaning patterns are developed or reviewed in the skill maintenance program. The use of context clues to define unknown words is the dominating feature in the vocabulary section of most selections. The use of the dictionary is advocated to check the meanings derived by the pupils.

Language

Program VII includes a review of primary decoding skills concurrently with the learning of new skills. In a skill maintenance program, initial consonants, vowels, digraphs, and dipthongs are covered. In the regular lessons, the major emphasis is on the word, story, and chapter. A vocabulary list accompanies each story or poem. An analysis of words is also part of each vocabulary lesson. A sixth and last unit consists of a group of related content selections.

Program VII views language as process. It stresses the idea that everyone's language should be respected. It gives advice to teachers of children who speak what is referred to as Black English and to those who teach reading to second language learners.

The program advocates much discussion of concepts. The class spends a great deal of time listening and speaking and appreciating the many facets of language.

Program VII states that a word gains meaning from the way in which it is used; a contextual view. In most of the vocabulary lessons, pupils are required to define words according to use. However, they are later instructed to check the dictionary for further clarification if necessary. There are several instances of using a knowledge of prefixes to get at word meanings.

CHAPTER 5

Learning and Teaching Program Characteristics

The teacher and the pupil occupy the same environment in a classroom. The classroom is where the reading program is used. The way in which the teacher structures this environment affects the way the pupil functions in it. Each reading program gives teacher and pupil roles either through explicit directions or implicitly in the materials. The roles of teacher and learner are interrelated. If these views are in conflict within a program, the program is inconsistent, and flawed to some degree. The views of learning and teaching in each program are juxtaposed in the following discussions.

Program I

Learning

Although the teacher's manual in Program I emphasizes what might be interpreted as a cognitive view of learning, the student materials strongly reflect a behavioristic view. The materials for the child set the goals, test their achievement, and systematically reinforce them. The child's own initiative is only nominally attended to in that some 'open-ended' questions are included in the text. Extensive space is given to behavioristically oriented activities. The large, though not exclusive, amount of physical space may indicate a greater concern with this type of learning activity.

There is no extensive explicit evidence for one particular view of the learner. In Program I, the teacher's manual and the instructions and activities for the pupil treat the learner as passive sometimes and, othertimes the learner's role seems to shift from passive to interactive in different activities.

Teaching

Program I follows a traditional basal reader method. Teachers are given motivational comments to use before each passage. Silent reading is followed by questions which require the determination of the main idea and the development of other skills which that particular passage is used to introduce or practice. The teacher's materials and the pupil's materials have clear instructions about what is expected of them as they process each passage.

There is no clear evidence of a preference of method for dealing with reading problems. The entire text could be viewed as a method of dealing with reading problems in that it provides all the activities which the authors believe are necessary for the improvement of reading abilities. The authors comment that instruction may be modified for individualization or remedial work. Some concern is demonstrated for the improvement of self concept of students, and for teaching reading skills to correct or fill in deficits. But these aspects of the program are not emphasized. The program generally does not concern itself with reading problems; rather, it devotes its sections to progressive development of an arbitrary sequenced set of reading skills. Progress is assumed if the teachers and pupils follow the program's directions.

The teacher is viewed as a technician who follows the directions of the manual. In some instances, the teacher is given a kind of script. The teacher makes few independent decisions. Questions which follow each passage provide an opportunity for discussions which the teacher may coordinate with some independence from the guide. However, some answers are suggested for these questions. The opportunity for teacher initiative is limited.

The teacher's manual and the pupil materials in Program I stress the development of skills which are necessary for future reading activities. The following program elements are viewed as preparatory for future life: familiarity with technical terms, basic concepts and information from the four subject areas presented in the units, understanding of the social situations in which the pupil lives. The questions and activities in each unit stress cognitive processes and technology. Some of the activities in the pupil materials also involve concepts of academic rationalism and social reconstruction.

Program II

Learning

Program II reflects a cognitive field viewpoint. Emphasis is on insight learning with reinterpretation and reevaluation when new information is encountered. The developed skills are general in their applicability. A behavioristic view is evident in the workbook exercises used to reinforce skills learned. There is incremental learning as one progresses through the levels, building upon past experiences. The idea of building new ideas upon old ones suggests a trace of mentalism.

A learner is basically active and interactive. The pupil can determine things and is encouraged to do so. The quest for the individual setting the purpose for reading is a reflection of this view. The pupils interact with one another and the teacher in group discussions in which ideas are shared. The stress is on the individual promoting his or her personal perceptions in a group-sharing discussion.

Teaching

The predominant pedagogical approach in Program II is the directed reading lesson in the basal text. Several major categories of elements are found in the typical lesson plan in the teacher's edition. A short introduction gives a synopsis of the selection. Objectives list the skills on which the lesson focusses. Motivation is assumed to build background. Suggestions for helping students set a purpose for reading. Development of the lesson includes suggestions to aid students in independent or guided reading and for the discussion which follows. The extension section is not included in the analysis of this program because it is designated as including only optional procedures and, therefore, is not a core part of the lesson plan.

This basal reader emphasizes literature and technical and informational approaches which are grouped into content units. The content units present not only opportunities to develop literary and study skills, but also a chance to meet ideas in many forms. The stories, which are developed around a common theme, become integrated through discussion and activities. Partial individualization is significant in this program while total individualization receives only a minimal emphasis. As the students proceed through levels, ideas for personalizing instruction occur throughout the teacher's lesson plans.

Phonics and word recognition are minimally used pedagogical approaches. Little evidence was found for the directed reading lesson in content areas, programmed materials, structural linguistic approach, and language experience. The publisher does list activities that are called language experiences, but they all lack the true element of language experience wherein the student functions as an author writing to read.

Differentiation of instruction, improvement of self concept of student, promotion of social and psychological adjustment, and reorganization of the curriculum receive strong emphasis. The differentiation of instruction is made possible by having three levels to each grade. Each student progresses through subsequent levels at his own pace. The improvement of self concept is brought about through the selections and the discussions which follow. The student may encounter story characters who have similar dialects or similar problems. The teacher is alerted to be sensitive to the needs of individual students and be aware of the expectations for the students. This may affect the student's reading success. Social and psychological adjustment is related to this approach. The program promotes the view that affective growth may lead the way to cognitive learning. Reorganization of the program fits the philosophy that each progresses at his own rate. The goal is to help the student become successful with materials that are appropriate to the individual's ability. Content material then can be reorganized to promote reading growth. Reorganization of personnel of the classroom, school, or district receives little attention. A diagnostic approach is present through miscue analysis, appearing as a supplementary aid rather than a core element of the approaches to reading problems.

The teacher is viewed to a significant degree as a guide and monitor. The teacher initiates the discussion concerning a selection, alerts the students to elements to watch for, creates motivation, asks questions, and generally guides the students through a lesson. The discussion that follows a selection is teacher guided. The teacher as a scripted performer, technician, source of wisdom, clinical information processor, and judge and policeman are present but more importantly, the teacher provides insights to learn as a guide and monitor. There is no evidence that this is a teacherless program.

The primary thrust of Program II is the cognitive process. The student is expected to develop intellectual skills that are general in their applicability. The student is exposed to a great varietv of content and formats. Topics and literary forms included are diverse. It is expected that the cognitive skills developed in dealing with this variety of materials will be applicable to the many kinds of reading materials the pupils must deal with in the intermediate grades and in the study and life tasks that follow.

The attempt to increase the awareness of career possibilities is an instance of education as a preparation for life. Self-actualization is an imPortant part of this program. The carefully selected stories are designed to be personally relevant to a wide range of student needs and interests. There are few right and wrong answers to discussion topics. Discussions attempt to get the student to think for himself or herself and to develop personal values. The student goes beyond the literal content and discovers his or her own ideas. Social reconstruction is present but not emphasized. Academic rationalism is present in that there are some classic folktales included. Technology is not evidently a strong curricular thrust in Program Il.

Program III

Learning

The view of learning in Program III seems to be implied in the publisher's statement concerning reading. The publisher views reading as an important aspect in the reader's adjustment to total experience. Reading is not considered an isolated activity.

The significant view of learning theory taken by Program III seems to be toward the cognitive field, and somewhat toward the behavioristic. The texts and teacher materials for the student texts emphasize, by their purpose setting questions, insights and the reinterpretation of previous experience when new information is encountered. Evidence for the behavioristic approach, systematic incremental learning, is in the repetitive objectives set in the skill development sections of the teacher's guides and workbooks. The student evaluations are almost exclusively behavioristic in the choice of question types.

Actionality is not directly treated in the program, but based on the cognitive field and behavioristic objectives stated, one would assume the authors consider the child interactive or passive-reactive. Evidence that the learner is viewed as passive-reactive is in the text's setting of purpose for the reader, and initiating of all activity. However, the student is expected to interact with the teacher, the other children, and the author's message in the group discussions dominated by the reflective questions.

Teaching

Teaching, for the Program III authors, is the program-directed management of learning of prescribed reading and interpretive skills, with administrative decisions made by the teacher.

The predominant pedagogical approach is the directed reading lesson in basal text approach. Each prose and poetry section is preceded in the teacher material by a list of objectives for motivating, guiding silent reading, and developing skills. The literature approach and the technical and informational approach might be said to be present in the selection of materials from the content areas. However, the mode is still basal text. Some programmed materials are offered in the workbooks and in the supplementary paperback study guides. The paperback study guides are designed for partial individualization of the program. Additional individualization is allowed for in small sections of each lesson plan in the teacher's guides which are set aside for regrouping for individual needs and reinforcement. Extensive enrichment sections also allow for partial individualization.

In its approach to reading problems, differentiation of instruction receives strong emphasis in the teacher guides. Skill development sections in each unit include suggestions for either remediation or enrichment. The pre-test evaluation masters provide diagnostic tests of reading skills for deficits. The post-test evaluation masters provide measures for mastery of specific reading skills.

The teacher in Program III is seen primarily as a scripted performer and a technician. The only decisions left to the teacher are those of management and selection. Lesson plans are minute in detailed instructions to the teacher. However, from the viewpoint of the student, who does not see the teacher's guides, the teacher might be seen as a guide and monitor. The teacher guides the lessons, asks the questions, leads the discussions. In the enrichment sections of the teacher's guides, the teacher's role seems to be that of guide and monitor.

The primary curriculum thrust of Program III is toward the development of cognitive process. There is an emphasis, in the teacher guide lesson plans, on the developing and strengthening of word analysis, study skills, and literary skills.

The selection of passages from the six disciplines to provide quality reading seems to suggest academic rationalism, though this is not the focus of instruction. The introduction to the material for teachers speaks of developing understanding and love of literature in children, which may have self-actualization as its base. However, with few child selected purposes evident in the curriculum, except in the enrichment activities, no consistent self-actualization thrust is seen.

Program IV

Learning

Program IV provides no perfectly consistent viewpoint on learning. Aspects of mentalistic views of learning are reflected to the extent that each lesson assumes the content of the previous lesson is part of the student's accumulated knowledge. This is evident in the treatment of vocabulary. Program IV reflects behavioristic concepts of learning in its sequential, incremental approach to vocabulary, skill, and knowledge development. Pupils who do not score at mastery level on the tests are given additional work at lower levels until they "master" the skills prerequisite to the next level. A cognitive aspect of learning is evident in the skills selected which are aimed at gaining new insights into new materials.

Program IV predominantly views the learner as passive. The pupil reacts or responds to the stories, questions, exercises, and situations which the program sets up. There is some opportunity for pupil-initiated activities. In several lessons, it is suggested that the pupil create his own story. The pupils may also interact with the teacher through discussions. However, the pupil is essentially the passive recipient of information and instructions.

Learning, in Program IV, is a form of continuous progress. The books are claimed to be gradeless in that the levels are indicated in terms of sequential numbers rather than in grade level numbers. Thus the book for sixth grade is number 13. It is assumed that a student in sixth grade could use a book numbered 10, which is actually for third grade, without embarrassment. The program sets up an incremental learning pattern. Students develop language abilities and practice already acquired abilities in each lesson.

Teaching

Each section of the units in Program IV follows the basal reader approach. Directed reading lessons include presentation of vocabulary, silent reading of a story or poem, discussion of the material read, and skill development activities. All of these lessons are part of content units. There are five content units to every level. However, the focus of each lesson is on the specific story or passage rather than on the general unifying themes of the unit. The skill activities which are part of each lesson frequently focus on structural word analysis. Word recognition is another teaching emphasis. There is partial individualization of this instruction in that each lesson contains supplementary activities for individual students who demonstrate a need to increase their proficiency in skill areas, or their knowledge of specific elements of language.

The major approach to reading problems in Program IV is in identification of deficits through mastery tests. Pupils who fail to score at the appropriate level must work on skill development at a lower level. This work focusses on skills and development activities. An emphasis in evaluation is on diagnosis of reading skills in a search for deficits which can be treated through reorganized instruction. The teacher is instructed to check, evaluate, and test pupils at the end of each unit to determine if remedial work should be assigned before the pupils move on to other units.

Teaching, in Program IV, is the management of learning. Teachers are to implement the program as prescribed in the teacher's guide, measure pupil progress, and assign extra activities to pupils with measured skill deficiencies. The goal of teaching is the development of pupil competence at increasing levels of reading difficulty as measured by mastery tests provided by the program.

The teacher is also a guide and monitor. The teacher schedules and supervises all the pupil's reading activities in accordance with directions from the teacher's guide. The teacher is a judge only in that he or she must evaluate the appropriateness of pupil responses to the small proportion of open-ended questions which are part of the program. The teacher also appears or acts as a source of wisdom in that he or she provides new vocabulary, information, and ideas contained in the teacher's guide for every lesson.

The major curriculum thrust of Program IV is on the development of cognitive skills. The development of the skills of literal comprehension, inferential comprehension, literary analysis, and structural analysis are the four strands of cognitive skills which the program emphasizes. The program reflects academic rationalism to some degree in that some of the stories at each level are adaptations of works associated with great books or important cultures such as the ancient Greeks. Social reconstruction is an important part of the program as it is communicated to the teacher. However, the communication of this importance is not as clear in the pupil text. The thrust of social reconstruction is not included in any of the evaluation materials. The program emphasizes the efficient production of more competent readers in the introductory materials for the teacher. Also, the guide recommends the use of the mastery tests to determine pupil needs.

Program V

Learning

Program V is basically behavioristic with leanings towards cognitive ideas of learning. The program focusses on conditioned responses and their reinforcement. It also focusses on emphasizing insights and reinterpretation of previous experiences when new information is encountered. The mentalistic view is not a significant thrust.

In this series, the educational environment is composed of the teacher-directed lessons and materials and is assumed to be the predominant influence upon the learner. The pupils are assumed to be passive. They react to the teacher-directed program. Pupils also interact with the materials. However, the learner does not actively seek information for himself.

Teaching

Program V deals exclusively with the directed-reading lesson. Its major concern is with children's literature. The series encourages children to utilize their understandings of literature in their own language experiences. Since the instruction is directed to a large group of students, complete individualization cannot be expected in the program. However, individual differences are recognized and the students have opportunities for supplemental study within the program. In the group instruction, word recognition and phonics are stressed. There is little evidence of the other pedagogical approaches listed in the profile instrument.

Program V suggests that reading problems should be handled within the instructional framework of the group. The program suggests that slower students will benefit from discussions generated by more capable students. A slower student's self concept is expected to improve if he or she is asked to present ideas to the group. Instructional differentiation is suggested but not emphasized.

The program exhibits little evidence of a diagnostic concept. The program suggests but does not emphasize testing skills prerequisite to reading. Reorganizing classroom personnel or school personnel, and testing reading skills to identify deficits are discussed, but only briefly.

Program V offers some evidence for viewing the teacher as a scripted performer, a guide and monitor, and a source of wisdom. The teacher is expected to follow the lesson plans in the text, guide aspects of the discussion in the lesson plans, and provide information to help youngsters appreciate the literature encountered.

Program VI

Learning

The teacher's guide in Program VI suggests that learning is best accomplished when appropriate materials are sequentially structured. These materials will then motivate the passive learner to respond to them and learn what is required.

The view of learning in Program VI is basically behavioristic. There is some evidence of mentalistic and cognitive field influences. The emphasis of systematic incremental skills development within and between units, along with frequent assessment of these skills indicates at least an implicit adherence to behavioristic theory.

The teacher's material, instructions to the students and activities for the student indicate a basically passive role for the learner. The students participate in teacher-directed drills, provide responses to questions about passages, and read for a text-dictated purpose.

Teaching

The teacher's role is primarily that of technician, following the prescribed outline of the program. The approach is the directed or guided reading lesson based on content units aimed at developing skills which can be used in future reading activities. Improvement in these skills is assessed through reading tests and evaluation exercises.

All three levels of Program VI use the traditional basal reading approach with strong emphasis on the content unit approach. The technical information approach is also present.

The primary approach to reading problems is diagnosing for reading skills deficits. The major diagnostic tool is a scoring technique which uses a brief review of the skills and content covered in every two units. This exercise is used to determine how much practice is needed before the student goes on to the next unit.

The teacher featured is as a technician in the series. The teacher basically makes few independent decisions and follows instructions from the text.

There is a high degree of emphasis on cognitive skills across the curriculum. Both the teacher and student materials stress the development of reading skills which can be applied to all types of reading in all subject areas. Familiarity with technological information, traditional fields of study, and the social situations in which the student lives are viewed as preparation for future life.

Program VII

Learning

Program VII reflects all three views of learning to some degree. It focusses on the development of mental abilities and the addition of new ideas to a store of continually increasing previously acquired ideas which is characteristic of mentalistic conceptions of learning. It is behavioristic in that the author assumes that the observable, measurable mastery of the content of previous lessons enables pupils to fare well in current lessons. The skill maintenance component is based on this premise. It is cognitive in that pupils are often asked to rethink ideas in light of new experiences encountered in the reading program.

Program VII views the learner as being predominantly interactive. The program relies heavily upon discussions between the teacher and pupils. The program suggests that the pupils be given many opportunities to create dramas and stories, and provides helpful suggestions.

Teaching

Program VII places emphasis upon the directed reading lesson in the text, the literature approach, and the language experience approach. In the teacher's manual for each story, provisions are made for vocabulary development, preparation for reading, reading the selection, developing related thinking and language skills, and additional related activities. The lesson plans, however, do not follow the typical skills development which can be found in most basal reading series. Instead, pupils' use of their language is encouraged. The pupils are directed to read, write, and discuss their ideas. The program encourages the reading of related literature after each unit. It also gives bibliographic information for the choices.

Unit 6 of each book is in the form of a content unit.

The stories and activities are correlated around a central theme. This unit may be directed by the teacher or used independently by the students.

There is evidence of the technical and informational approach. Pupils have opportunities and are encouraged to research topics and use outside sources of material.

Three major approaches to reading problems seem to be emphasized in the teacher's manual. The authors state the need for differentiation of instruction and provide for it through the skill maintenance section and in the 6th unit of each book. The improvement of the self concept of the student is also emphasized through the selection of stories and discussion before and after each story. Testing reading skills for deficits is recommended through the use of mastery tests and activity books.

The teacher is viewed predominantly as a guide and monitor. The teacher guides the discussions and supervises the reading activities. The teacher is also a source of wisdom for he/she relays information contained in the teacher's guide for every lesson. Some evidence suggests the teacher is viewed as a technician, carrying out the directions in the teacher's manual.

Three curriculum thrusts are evident in Program VII: cognitive processing, social reconstruction, and self-actualization. Each lesson seeks to develop cognitive skills for application later, sometimes in the next unit, or next reading level, and ultimately in later life. The teacher's edition stresses the idea of guiding pupils to function in a pluralistic society suggesting a view of social reconstruction. The pupils have many opportunities to determine things for themselves indicating that self actualization is operating as a presupposition.

There is evidence of academic rationalism in that there are stories about important personalities and by the fact that pupils are encouraged to read literature outside of the basal text.

CHAPTER 6

Program Purpose

There are several places in the documents which make up a reading program where the basic mission and specific purposes of the program are conventionally stated. The promotional materials that are used to introduce a program to those who may purchase or use it may contain a statement of purpose. The teacher's manual that ordinarily accompanies the basal text is a place where one expects an indication of purpose. In some instances, workbook and other program components are designed as part of the basic program, and may contain a statement of purpose. Specific lesson plans may reflect purpose, implicitly or explicitly. In fact, any component of the program may implicitly or explicitly contain an indication of purpose or goals. This study focusses primarily on components of the basic programs to gain insight into the purposes of programs.

The extent to which a program fulfills its stated goals is discussed in the following section. Statements of purpose for reading instruction, either explicit or implicit in the program guides, were compared with the actual program materials. These purposes may not involve the basic theoretical areas of reading, language, teaching, and learning. Therefore, this is only one indicator of program consistency. Of more significance to the program user are the hidden purposes and presuppositions. But because these aspects of a program are not obvious, they may not be perceived by the user. The teacher may assume he/she is implementing a program which is designed to fulfill a purpose without realizing that this purpose may not be represented in the pupil materials.

One purpose that underlies all of the programs is that the program is designed for youngsters to read who are placed in the grades or levels designated by the publishers. To determine the consistency between the grade or level designation and the approximate readability of the materials, a readability formula was applied to each of the seven programs. See Appendix D for Readability Formula Information. Error factors in both the formula and sampling techniques used are realities, and the authors entertain no delusions as to their accuracy. However, the formula approach provides a commonly used estimation of the readability of the materials.

Program I

As stated in the teacher's manual, Program I is designed primarily to provide skills development in reading in the content areas. The program seeks not only to develop appreciation and interpretation of narrative materials, but also to provide content and activities for use in teaching students special skills in reading in social studies, science, and new math.

The general purpose as implied in the Program I student materials is to get at information and appreciation in reading from different subject areas. Basic skills of word attack, dictionary, rate, and contextual reference are sequentially developed.

Thus the purposes for reading as stated in the teacher's manual are fairly well followed in the student materials.

One difference between the teacher's manual and the student materials is that cognitive learning theory is stressed in the teacher's manual while the activities for the student are much more in keeping with a behavioristic theory of learning.

The readability estimates of materials in Program I seem to show more difficulty than average for students in grades 4, 5, and 6. Program I is a unique inclusion in our sample because it extends to high-school levels and tends to be a selection considered more regularly for junior-high and secondary programs. However, the portion of the program examined is clearly specified as being appropriate for grades 4, 5, and 6. The readability levels estimated in this study suggest that the materials are not entirely in accord with expectations for average performance in grades 4, 5, and 6.

Program II

The general purpose for reading instruction as stated in the teacher's edition of Program II is to prepare children for the "explosion" of reading in the middle grades and beyond. The program also seeks to communicate to them the rewards of reading. The teacher is to help the students read and think critically as well as develop basic skills.

The students' materials are designed to meet the above stated goals. The students encounter a variety of content which prepares them for the diverse reading matter they will experience. The skills they develop are seen as ones that help to generalize learning. The varied content meets another goal in that it was carefully selected to meet the interests of the students. The students read to get meaning from print and to become critical readers. They also read because it has a personal value beyond the questions waiting at the end of the selection.

There is a very high consistency between the teacher's and students' material in terms of purpose. If an objective is named, it is represented in the students' materials.

Program II's estimated readability levels appear high for grades 4 and 5 and about right for grade 6. However, error due to the formula may exceed one grade level making the estimate for grade 5 materials consistent with the publisher's designation. The grade 4 level sample is two grade levels higher than the designated level. However, error due to sampling prohibits a strong statement of readability discordance with respect to Program II. The program's rejection of controlled vocabulary may make the Fry formula less appropriate in grade 4 than grade 6.

Program III

In Program III, the general purpose for reading instruction indicated in the teacher materials is to relate reading to the whole of experience. Program III seeks to help children see reading as a way of seeing the world and to lead them to see a central theme from various points of view. A carefully structured sequence of materials seeks to help students organize their thinking. The main goal of the series is to help students learn to interpret and understand what they read. The program seeks to give children a deeper appreciation for the many forms and purposes for reading and to encourage critical reading, wide vocabulary development, and specific skills in subject matter areas.

Purpose is not directly stated in the materials for the student. Reflective questions in the student texts imply that the student's purpose should be to interpret, evaluate, and relate the author's message to his own experience. The presence of skill exercises and evaluations imply the purpose of skill development. And the presence of some good excerpts from literature and beautiful reproductions from primitive and classical art implies the purpose of development of appreciation.

There is high consistency between the detailed small objectives stated in the teacher materials and the materials presented to the student.

The readability estimates for Program III fall within conventional expectations. Samples for grades 5 and 6 were estimated at grades 5 and 6, while the 4th grade sample falls one grade higher, within the limits of expected error. The program appears consistent with the purposes of the program with respect to grade level designation.

Program IV

The purpose for reading instruction is communicated to the teachers in the introduction to the teacher's guide in Program IV. The purpose centers about the development of decoding, comprehension, and evaluation skills leading to the pupils' incorporation of the ideas he reads into his own thinking. The program seeks to provide "for extension of skills and application of these skills to new materials and settings." This is the primary purpose of the program. Program IV also seeks to develop a sound value system, an appreciation and understanding of good literature, an understanding and appreciation of the pluralistic nature of American society.

Program IV gives pupils a specific purpose for reading each of its stories and poems. However, the text does not explain a purpose for reading in general, nor does it indicate why the pupil should be involved in reading instruction. But the pupil's skills handbook does give the pupil a reason for reading instruction: the improvement of his ability to use the "special tools" of reading. The purpose of the development of these skills is "understanding, evaluating, and applying the ideas of the author" which the skills handbook tells the pupil is the "real aim in reading."

Program IV samples of reading material appear inconsistent with the designated target group with respect to grade 4 materials which are estimated to be two grade levels higher or more difficult. Materials for grades 5 and 6 are in accord with conventional expectations and within the error limits assumed.

Program V

One purpose for reading in Program V as indicated in the materials for the teacher is to maintain a high level of student interest. Another purpose is to provide the necessary stimulation for developing skills in thinking, discussing, and writing, as well as in reading.

The purpose of reading as indicated by materials for the student is to become acquainted with numerous experiences that can be provided by literature and to develop an appreciation and awareness of the various styles and subject matter presented by the selected authors.

In general, the purpose indicated in the materials for the teacher and those implied for the students remains highly consistent. Those areas where a discrepancy exists between the materials for teachers and those for students are in dictionary skills. While the objectives and organization of dictionary skills are indicated for the teacher, they are not as evident in the materials for the student. The learner is left with a vague idea of the use of the dictionary if the student's materials are viewed in isolation.

The readability estimates of the materials in Program V appear too high for the designated target groups. Grade 4 materials are estimated three grades higher than average. Materials for grades 5 and 6 are estimated to be two grades more difficult than conventional expectations. The materials for Program V are estimated to be in disaccord with the program purposes with respect to conventional estimates or average performance.

Program VI

The general purpose of reading instruction indicated in the materials for the teacher is to help the student acquire reading skills. Specific skill areas included as objectives are: recognizing words; deriving word meaning, comprehending sentences, paragraphs and whole selections; selecting pertinent data; evaluating the authencity of materials; and graspring the implied ideas.

Explicit statements of purpose of reading instruction are seldom indicated by materials for the student. However, the organizational development and structure of the thematic units, which include preparation exercises, directed reading activities and evaluation exercises give evidence of implicit agreement with the purpose stated in the teacher's manual.

The purpose indicated in materials for the teacher and purpose implied in materials for the student are consistent with each other.

The major emphasis in the pupil's materials in Program VI is the development of the abilities of structural analysis, literal or inferential comprehension, and literary analysis. Less discernable in the pupil's materials is the final goal for reading instruction, one of incorporating the ideas found in reading into the pupil's own thinking. There are many instances in which the pupil text asks the pupil to read about other people in different cultures, ideas from science, and other subjects about which the pupil may collect information through reading. But there is no clear opportunity for the pupil's thinking to change as a result of this new knowledge. The pupil is asked to think about the subject matter, from dinosaurs to discrimination, but the pupil is seldom asked to make decisions which judge the validity of situations or to incorporate understanding of these subjects in creative activities. Therefore, the pupil textbooks are consistent with two of the teacher guides' stated purposes for reading instruction: development of pupil decoding and comprehension abilities. However, the pupil textbooks do not emphasize the evaluation skills or the incorporation of ideas into student thinking.

Materials for students to read in Program VI are estimated to be within the limits of conventional expectations with respect to the average performance of the target groups. Materials for grades 4 and 5 are estimated to be one grade lower than expectations, while grade 6 materials are estimated at the appropriate grade level. The direction of the error in grades 4 and 5 may be deliberately assuming easier materials are more likely to be usable than harder materials. The materials of Program VI are estimated to be in accord with the purposes assumed with respect to the target group.

Program VII

The purposes of Program VII reflect concerns for the readability of materials, the characteristic of a pluralistic society, skill maintenance, and individualization of instruction. In general, the stated purposes of the program appear to be in accord with the materials and procedures recommended, if one ignores the distinction between basic and supplementary materials. The evaluation phase of the program, which relates to the skill maintenance and individualization aspects of the program are included in materials designated supplementary. Several direct inquiries were made with representatives of the company because it was felt that perhaps designations of basic and supplementary were not correctly communicated. The program is new and errors in representing a new program are common in our experience. All inquiries indicated that the designations were accurate with respect to the purposes of the program; hence, we find that some important evaluative aspects of the program are not part of the basic program.

Focus on the characteristics of a pluralistic society is carried out in imaginative ways. Story selection and illustrations are unique in this respect. Content is generally geared to metropolitan life, another plus for the rating of the consistency between purpose and function. The skill areas that predominate in the maintenance section tend to reflect conventional assumptions about phonemic-graphemic relationships, structural word analysis and reading; thus raising conflict with respect to other aspects of the program that focus on recovering deep structure as a comprehension tactic. The estimated readability levels of the materials for Program VII appear fully consistent with the purposes with respect to the designated target groups, grades 4, 5, and 6. This is to be expected because this purpose, the reflection of modern readability research, is clearly and explicitly emphasized.

Conclusion

In general, the programs reviewed reflect their purposes as stated to reasonable degrees. Inconsistencies exist, as we have noted. Some variation in the degree of inconsistency between stated purpose and program is evident among the programs selected. All programs reviewed are complex enough and subject to problems to a degree that warrants the recommendation that a thorough, careful examination of the purposes of the program is an important aspect of successfully using it in instruction.

Programs exhibit unique characteristics. They differ. No instructional approach that assumes all programs to be alike makes much sense. On the other hand, the conventional categories of programs often used for discussion, evaluation, or research, do little justice to the underlying complexities. In many respects, the theoretical areas that are not explicit in program statements constitute the largest body of characteristics. This suggests that most of what happens in the use of a particular program is not specific to the program, but rather is a function of the decisions of the individual teacher.

If it is true that most of the decisions required in a program are in fact up to the individual teacher, then the often heard suggestions to beginning teachers to follow the basal-reader program are inappropriate. In general, the programs we reviewed here provide many instances for teachers to make decisions. Statements about teacher initiative, creativity, judgment, flexibility, and options, though varying among programs, are frequently encountered. We agree with this thrust. However, when options are suggested without methodology for making decisions about the options, it becomes inappropriate to suggest that a program will provide the guidance required for instruction. In some talks with some publishers we discerned an underlying assumption that teachers in general are highly competent and already possessed of the methodology to make productive decisions about suggested options. If this assumption is true, we find many of the claims of programs, particularly with respect to purpose, to be supported. On the other hand, we found, in many instances, a view that teachers require a step-by-step guide, suggesting that unless the materials provided by the program actually do provide a methodology for making instructional decisions, stated purposes are unlikely to be met. If teachers do what they are explicitly told how to do, they will not meet the broad purposes of many programs. If they show the confidence and competence to make their own decisions, they will - but then it is the teachers and not the program which will make the difference.

Management Systems

In recent years management systems, either part of the publisher's package, or from an external source, have played an increasing role in middle-grade reading instruction. These systems, such as the Wisconsin Design, invariably emphasize the sequential development of skills to the exclusion of anything else. Though the proponents often assert that these are not meant to be complete instructional packages, the pre-tests, post-tests, and program evaluations are often totally on the basis of the management systems. That causes administrators and teachers to put time and energy on the skill hierarchies and ignore the rest of the programs. Program differences become irrelevant then. The management system is a procrustean bed eliminating difference and turning the programs into behavioristic, atomostic skill-centered sequences in which technology dominates, learners are treated as passive and teachers are technicians.

CHAPTER 7

Conclusions and Implications

How to Produce a Reading Program

The clearest conclusion of this study is that published reading programs are instructional packages which have been assembled without theoretically based designs. They do not have firm, examined theoretical bases; they show more evidence of decisions being made by default than by deliberate application of concistent criteria. Similarities in many elements, such as workbook exercises, skill sequences, and evaluation devices seem to be more based on tradition and market considerations than on defined views of reading, comprehension, learning, or teaching. Inconsistencies within programs are the rule, not the exception.

Perhaps all this reflects a chaotic situation in the schools that involves the relationships of materials, methods, curricula, and evaluation. If curricula were articulate and soundly roofed in research-based theory, then schools would be choosing suitable and effective methodology and publishers would have some pressure to provide appropriate instructional materials that are consistent with the criteria of the curricula and methodology.

This is not to say that authors and editors of reading programs do not believe they are using a coherent set of principles and criteria in constructing programs. What we are saying is that the criteria are often a loose collection built around a few strong commitments and not sufficiently well articulated and soundly rooted in theory. That produces program components that teachers and learners actually experience which are not the result of strong design and selection criteria.

Many middle-grade reading programs are simply extensions of beginning programs, less well planned, less well executed, less well related to views of reading, language, teaching, and learning.

There certainly are very different approaches to teaching reading comprehension possible. But they result from combining views of reading, language, teaching, and learning coherently to produce the decision-making criteria for a methodology.

When reading programs concentrate on developing reading comprehension, which they all do either as the main focus or one of several major focal points in the middle grades, their premises become blurred, inconsistencies arise, and elements appear which have little justification in teaching or evaluating comprehension.

Partly this condition results from preoccupation of text developers with beginning reading. Partly it's the result of assuming that building relationships between print and speech, either at letter or word level is the main business of reading instruction. Reading is reduced to matching and it is assumed comprehension automatically follows. Partly also, too little use has been made of theory and knowledge about comprehension, particularly comprehending print.

Comprehension-Centered Reading Program

It is our belief that reading instruction from the beginning must make comprehension the prime concern. We define comprehension as constructing meaning from print. We believe that language is learned as a whole in response to the need to understand and be understood. In that sense, what pupils are asked to read must be real, whole, relevant, and meaningful language.

If we pinned a label on our ideal reading program we would call it "comprehension-centered." In it, literacy would be considered an extension of natural language learning. We would teach no skills. Rather we would help learners develop comprehension strategies. They would be helped to try to make sense of what they read. We would apply the lessons of cognitive psychology, considering how the characteristics of text influence comprehension, how readers' schema influence what they understand. We would treat comprehension as the result of interactions between writer and reader. Teachers in our program would be guides, facilitators, and monitors, knowledgeable about reading, language, learning, and children. We visualize reading instruction materials as wide ranging, variable to suit different personal-cultural needs. We see children learning to read by reading, not by workbook exercises or skill drills.

Since comprehension would always be the focus from the beginning of reading instruction, the middle grades would be a time for expansion, for broadened horizons, for greater flexibility, for helping gullible readers to be critical, for helping reluctant readers to find pleasure and satisfaction, for helping omnivorous readers to develop elective perceptive taste. Self-evaluation would be the principal means of evaluation in our comprehension-centered program. Learners would be encouraged to ask themselves whether they have understood and to use correction strategies when they have not. Teachers would monitor for strengths as well as weaknesses as a base for selecting and designing instructional activities.

Classification of Programs for Middle-Grade Comprehension

Researchers and others must avoid classifying programs by the use of traditional terminology. Those terms that Chall used for program names, as Corder concluded, simply do not sharply distinguish programs in any useful sense.

We suggest that our paradigm be used, as represented in the profile instrument, to delineate the key premises of each program and to indicate how consistently they have been applied throughout the ascending levels of the program and in its various elements. We suggest that grouping programs for the sake of statistical comparison is an indefensible practice in research and evaluatory studies at least at this point in time.

We suggest further that the experience that particular learners really have with a particular program can not dependably be predicted from the program itself and that it will vary from district to district, school to school, teacher to teacher, and even pupil to pupil.

That makes research which seeks to deal with the effect of particular programs on learning most difficult to conduct.

Selection of Programs by Schools and Teachers

Again we believe our paradigm and profile instrument can be useful to schools in selecting texts. But such selection must follow a careful development of a reading curriculum in which theoretical bases are used to develop decision-making criteria.

There is a circle too prevalent in reading instruction in which materials determine curriculum and method and market considerations and traditions determine materials. Publishers say they're giving teachers what they want and teachers use what they are given. In this circle there is no substantive point at which knowledge, particularly new insight from research can enter.

This is an era of explosion of knowledge. All of our four concerns; reading, language, learning, and teaching have been areas of intense development in this era. New theory and knowledge must be digested and implemented in developing reading comprehension programs. Schools can only assure this implementation by putting materials in proper perspective, selecting them to serve an articulate, coherent curriculum rather than letting them determine the curriculum.

PART II

The Program Profile: A Paradigm of Reading Instruction

CHAPTER 8

Reading

Three educational missions are identifiable in the literature of reading comprehension instruction. One mission is to help students learn to produce a spoken analogue of the author's printed language. A second mission is to help students learn to reconstruct the author's message. A third mission is to help students construct knowledge about the author's message. These three missions subsume a host of categorization systems that can be derived from the literature of reading inst~~ruct~~ion.

Missions

Spoken Analogue

Much of reading instruction seeks to help youngsters learn to produce a spoken analogue of the author's printed language (Carroll, 1972, p. 2). The relationship of this mission to comprehension centers about the assumption that if a reader can produce a spoken analogue of the author's printed language, that reader will be able to understand the message. This assumption is true in some instances and false in others.

The truth of the spoken analogue assumption is evident in instances when the reader is working with materials that use language that he or she can understand when it is spoken. The falsity of the assumption is evident when the reader encounters materials that use unfamiliar language and deal with content that is new to the reader or too difficult. Many of us can produce a spoken analogue of the language of a paragraph in an insurance policy, but fail to understand it unless we know the court decisions that underlie the legal interpretation of that clause. If comprehension, or understanding the message, is the goal, producing a spoken analogue of the author's printed language falls short, and comprehension can not be automatically assumed because the analogue is produced relatively intact.

Chall (1967, p. 189) suggests "... for all practical purposes American reading instruction is basal-series reading instruction." Basal series tend to be based in literature, and exhibit a distinct contrast in content with many of the subjects of high school; biology, chemistry, physics, mathematics, and social studies. Both the content and the language of much of the subject matter of schools differs markedly from the content and language of basal readers, and in these instances, the veridity of the spoken analogue assumption is doubtful with respect to comprehension.

At its roots, the mission to produce a spoken analogue of the printed message subsumes many of the stated objectives of reading instruction that relate to oral reading. Skills relating to oral reading include those that actually involve oral reading performance with both partial and whole language, those skills that function as demonstrated prerequisites to oral reading performance, and those skills assumed to be prerequisites in spite of a lack of evidence to support the conclusion.

The implications of the concept of a spoken analogue to printed language extend beyond the limitations of oral reading performance. Vygotsky (1934) and a host of others identify inner speech as a reality. Introspection verifies the existence of inner speech. It is a rare individual who reports that he or she can not produce a thought analogue when that same individual can produce a spoken analogue.

The key distinguishing characteristic of the spoken analogue mission is that it necessarily involves producing, either in thought or in sound, the surface structure of the author's language. It may or may not involve understanding the message, but is assumed to involve understanding in many instances.

Reconstructing the Author's Message

A second global mission of reading comprehension can be characterized as helping students to learn to reconstruct the author's message. Here, the emphasis is on getting the meaning of the author's message. It includes the reconstruction of the syntactic aspects of the author's language by virtue of the kinds of activities we ask youngsters to perform in reading instruction. However, the major focus of this mission is on the semantic reconstruction of the author's message. Some would frame explanations of this mission in terms of the deep structure of the author's language, in contrast with the focus on surface structure identified in the process of producing a spoken or thought analogue of the author's message.

Meaning is the goal, and tends to be identified in two thrusts. One thrust is word centered and engenders vocabulary development as a major instructional objective. The search for lexical meaning is in contrast to a whole language approach. The search for the contextual meaning of an author's printed message is the process that appears most defensible under the global mission of reconstructing the author's message.

Constructing Knowledge about the Author's Message

The construction of knowledge about an author's message is sometimes included under the rubric of reading, and sometimes it is relegated to the category of thinking. It is not argued here that it should be or should not be on logical terms. Rather, it is noted that it is a defensible educational goal, that it is apparent in the literature of reading instruction, and that it is represented in many of the published programs. Roger Farr (1977) defines reading as, "thinking guided by print."

Whenever readers are asked to decide whether or not or to what degree an author's message is true, they are being asked to construct knowledge about the author's message. Whenever readers are asked to decide about the value of a message, they are being asked to construct knowledge. Value decisions about whether the message is good or bad to some degree occur within some conceptual framework. An author's message may be evaluated with respect to literary style, how pleasing the work is, or the consequences to humanity and individuals. Readers in our schools are asked frequently to construct knowledge about the author's message.

Several subsystems of these three missions are apparent in the literature of reading instruction. One subsystem we label Program Focus. It centers on groups of objectives evident both in programs and in the literature. A second subsystem, Comprehension Tasks, involves the tasks readers are asked to perform to permit the inference that language comprehension is or has occurred. A concern for Levels of Comprehension is a third subsystem in both the literature and programs of instruction. These three subsystems; Program Focus, Comprehension tasks, and Levels of Comprehension fit the global missions; Spoken Analogue, Reconstruction of the Message, and Construction of Knowledge.

A fourth subsystem reflects ideas that are specifically applied at the middle grades and above with respect to advance organizers as well as ways of establishing approaches to guided silent reading in directed reading lessons. Recent research (Gibson and Levin, 1975) focusses on the Purpose of Reading. The subcategories of the purpose of reading are not subsumed by our missions. Rather they cut across the missions and must be described in a different way at the paradigmatic level.

Program Focus

Six categories of Program Focus are identifiable. The categories are 1) Sounds, Letters, and/or Matching Sounds and

Letter Combinations; 2) Word Identification; 3) Word Meaning Matching to Word Shapes; 4) Syntactic Reconstruction; 5) Meaning Reconstruction; and 6) Knowledge Construction. Items 1 and 2 relate directly to producing a spoken analogue of the author's printed language, one of the basic missions of reading instruction. Items 3 , 4 and 5 are subsumed under a second mission, reconstructing the author's message, and item 6 is constructing knowledge about the author's message, a third mission.

Sounds, Letters, and/or Matching Sounds and Letters

Underlying the mission to help youngsters produce a spoken analogue of the author's printed message is a large group of activities that function as skills, objectives, and components of reading programs. The identification of letters, letter combinations, and sounds that are conventionally associated with the letters and letter combinations are included in this category. Usually, the activities of this category are associated with beginning reading rather than middle-grade reading. The emphasis is on skills assumed to be prerequisite to producing a spoken analogue of printed language, which in turn, is assumed to permit the reader to understand the message.

Word Identification

Here, the unit of focus is the word rather than parts of words or units that are larger than words. The task is identification. The student is helped to learn to say the word when a graphic representation of the word is displayed. Words are often treated in isolation, in lists, or on cards, and the meaning of the word is not of direct concern. As in the case of the sound-to-letter or letter combination matching category, generally it is assumed that if the student can be brought to the point of producing a spoken analogue, comprehension will follow. Smith (1971) calls this category word recognition. Reading instruction that focusses on developing an initial sight word recognition vocabulary falls into this category. Usually, it is assumed that the words to be identified are words that are already part of the speaking vocabulary of the student.

Word Meaning Matching to Word Shapes

Associating the graphic display of a word with one of the conventional meanings of that word is a case of matching. As in word identification, the graphic display is usually in isolation in a list or on cards. Smith (1971) refers to this category as word identification. Basically, it is a lexical category; matching words with definitions in what might be called a dictionary approach. Vocabulary development is a name often attached to school practice and student assessment.

Syntactic Reconstruction

A syntactic reconstruction is possible where the subject focusses on the arrangement of words, phrases, clauses, and sentences. Syntactic reconstruction is a case of partial meaning reconstruction. The student may cope with the syntactic structures in a number of ways. In oral reading, the subject displays adequate or even insightful intonational patterns. Often, miscues are syntactically acceptable within the sentence, but semantically unacceptable. Comprehension questions that can be answered on the basis of partial meanings reconstructed from syntactic relationships may be answered correctly, while comprehension questions requiring understanding lexical or structural meaning invoke error. If a sentence such as "Blanko blipped the blurps," is encountered, the subject may correctly answer the question, "What did Blanko blip?", but can not correctly answer questions concerning what "blipping" or what a "blurp" is.

Meaning Reconstruction

Here, focus is on reconstructing the contextual meaning of the author's message. Included is what is often called literal meaning as well as something called inferential meaning. Literal and inferential comprehension are dealt with elsewhere in this document. The word is not the focus of this category; rather the message is the unit. A message may be describable to some degree in terms of words, phrases, or clauses; and in such an approach, the focus of this category would most often the grammatical categories that are larger than words.

For example, Simons (1971) outlines examples of the recovery of deep structure. One example presents a sentence to the reader and asks the reader to select from an array of three sentences the sentence that is not a paraphrase of the original when the two of the three sentences are, in fact, paraphrasings. A second example involves filling in blanks in three sentences to make all three convey the same meaning. Reconstructing meaning involves both explicit and elaborate functions. The reader can paraphrase and understand the author's ideas as they are expressed, but meaning reconstruction does not include the construction of knowledge that is not present in the author's work. Meaning reconstruction is a rebuilding and reassembling function. Linguistically, meaning reconstruction involves both lexical and contextual aspects of what the author's message is without drawing implications and conclusions about its truth or application.

Knowledge Construction

The category of knowledge construction refers to aspects of reading that involve drawing conclusions about the author's message rather than reconstructing the author's message.

Many authors classify knowledge construction as thinking, not reading. The distinction is not questioned here. However, the purposes of education in relation to reading would be unacceptable if we were content to produce readers who are unable to adequately decide whether or not what they have read is true, worthwhile, or applicable to what they think and do. Educational goals do not include producing readers who believe what they read because it is in print. Educators can not be satisfied with reading programs that provide the reader with opportunities to reconstruct the author's meanings and assume that critical reading will automatically occur once this is done.

The categorical system presented here distinguishes between knowledge of what the author's language says and knowledge about what the author says. Reconstructing meaning involves knowing how to understand what the author means. In this sense, knowledge of how language works is deeply involved in reconstructing meaning. Similarly, when meaning has been reconstructed, it is proper to say that the reader knows what the author has written.

The reader who is constructing knowledge may answer literal comprehension questions correctly or not. Similarly, inferential questions with convergent answers expected may or may not be answered correctly while questions designed to elicit divergent answers tend to receive strong attention. Obviously, the desired response of a reader who is constructing knowledge includes evidence of the reconstruction of the author's ideas, meaning reconstruction as treated here. In oral reading, miscues tend to be semantically acceptable within the sentences the reader constructs. A tendency to move from the author's language to paraphrasings or transformations of the author's language into forms reflecting the reader's dialect may occur. The author's purpose may be understood, but often the reader's purposes may be evidently more influential in responses to comprehension tasks. Literal and inferential comprehension questions will be answered correctly in most instances involving meaning reconstruction, but knowledge reconstruction may produce evidence of an unexpected framework of ideas that is not necessarily a conventional reconstructive response to the author's message. Evaluation, application, and appreciation are functions of knowledge construction. The reader pushes the author's ideas, sometimes well beyond the limits of the author's reconstructable intent. Knowledge construction is creative in that the reader generates ideas that are new to him. They may also be new to the world, but they need not be in order to be classiflied as construction in this category.

Knowledge construction involves the reader building ideas rather than rebuilding the author's ideas. Linguistically, it can involve all the aspects of meaning reconstruction available to the reader, but it focusses on the opinions and ideas that the reader constructs as a result of encountering the author's printed message.

Summary

The categories of Program Focus are: 1) Sounds, Letters, and/or Matching Sounds and Letter Combinations; 2) Word Identification; 3) Word Meaning Matching to Word Shapes; 4) Syntactic Reconstruction; 5) Meaning Reconstruction; and 6) Knowledge Construction.

Each of these can be used to help describe the major focus of a reading program. In our analysis of example programs, we use these categories to link the language of instructional materials to the paradigmatic categories.

Comprehension Tasks

An observer can not see into a reader's head. Comprehension can not be observed. However, the reader can be asked to perform a task that reflects comprehension. Skill required to perform a task and the process of remembering are confounded with the measures of comprehension even if the duration of the task is very short. Carroll (1972) identifies most of the tasks used to assess comprehension. Included are subjective reporting, true or false questions, multiple-choice questions, following directions, missing elements, questions about a passage, message recognition, and message reproduction.

Subjective Reporting

Carroll (1972a, p. 15) describes types of subjective reporting: "Comprehension versus non-comprehension, degree of comprehension, or comprehensibility." Message-related tasks of self reporting and answering questions about "meaningfulness, analyticity, (or) ambiguity" (italics mine) are cases of subjective reporting. Student assessments about the acceptability of syntactic or semantic structure of a message, assessments of the importance of a message, or how a message relates to a particular topic, and questions about the relationship between parts of a message can fall into this category.

Danks (1969) and Kershner (1964) use subjective reporting in conjunction with other measures to help explain comprehension. Carroll (1972) notes the inadequacy of subjective reporting in situations where the student has something to gain by appearing to comprehend. Without some way of corroborating the subjective report or some method of insuring that the student's purpose is accurate reporting, student reports are subject to the criticisms of introspection as an unreliable tactic. However, non-adversary relationships between the student and a test administrator are possible. Uses of corroborative measures, informal observation techniques, sincere requests for help by students, and projective test techniques are some of the avenues that warrant examination.

True or False Questions

A common task is identification of statements as true or false in relation to a passage. If the passage was read and is not available at the point of responding to the true or false questions, the subject relies on memory, but the subject may have the original passage available. The familiar open book exam falls in this category when true or false questions are used. The student compares the original passage with a second message and determines "equivalence of meaning" (Carroll, 1972 , p. 15).

Comparison of a printed message to prior knowledge, rather than a previously read passage; comparison of written statements with photographs, illustrations, maps, or diagrams; or "true" or "false" to statements about objects fall into this category.

Multiple-Choice Questions

Students may be asked to choose the correct statements or phrase, or term in relation to a message from an array of statements, phrases, or terms. The array may include one correct item, several, or no correct items. The passage which corresponds to the items may be available as in an open book exam, or the student may be required to remember what was read. The array of items may be literal, requiring analysis or recall of a passage, or the item may be inferential requiring reasoning from facts in the passage or reasoning about the passage using the student's knowledge of the topic over and above his knowledge of language.

Following Directions

Printed instructions may tell how to do something or they may be commands. Workbook instructions sometimes combine both explanatory information about a task and a command to do the task. Instructions for drawing a map, fixing a flat, solving an arithmetic problem, or assembling a model or machinery are examples of explanatory instructions. The described procedures for a fire drill or the legal rules of the road for driving function as directions.

Missing Elements

Many test tasks included in published reading programs have traditionally asked students to fill in a blank in a sentence or passage. Missing elements refers to tasks using sentences, passages, or diagrams that relate directly to what the student is expected to comprehend outside of the test structure itself. Missing elements is not a case of trying to test how well the student understands the test, but it is quite true that any measures in any test are confounded by the effects of how the student interprets the test.

Filling in the blanks in sentences is a common task. Recently, systematic inquiry brings the cloze procedure into focus in relation to comprehension. Taylor (1953), Rankin (1957), and Bormuth (1968) hammer the simple task of writing a word in a blank in a sentence into a reliable tool for probing readability and indicating comprehension (Bormuth, 1968 and 1969a).

Assessment of how difficult material is for an individual to read tells much about the comprehension of that individual on that material. Bormuth (1969b) and Coleman and Miller (1968) describe comprehension as the difference between what is known before and after reading a passage. Tuinman (1973) provides evidence that this idea points to a serious flaw in conventional comprehension testing. Many conventional comprehension questions can be answered correctly without reading the passage to which the questions refer.

Bormuth (1975a) provides criteria for interpreting cloze scores to assess how well a reader can interact with a passage. Recently, Bormuth (1975a) used regression techniques to transform this information into tables permitting ready conversion of conventional cloze score information into reliable grade level assessments. Coleman (1971) related conventional and other cloze performance to a variety of linguistically based measures of printed language.

The cloze test is one group of tests requiring the subject to supply missing elements. Others exist. Sentence completion tests and reordering scrambled words to make a sentence involve supplying the missing elements (Carroll, 1972).

Questions about a Passage

Questions about a passage are used on most standardized tests. Sanders (1966) and Smith and Barret (1974) list categories of questions based on Bloom (1956). Hillocks, McCabe, and McCampbell (1971) provide an inventory of question types appropriate for critical reading of literature beyond a literal level. Bormuth (1969b and 1970) opposes present question writing practice, and offers a method for gaining reliability with literal questions asking who, what, when, and where. Bormuth's algorithm of question construction can be elaborated to areas beyond literal comprehension, but as yet much theoretical work remains before the idea is fully applicable. Unreliable as they may be, questions about text are a mainstay in practice in attempts to test comprehension.

Message Recognition

Often a student is asked to read a passage and select statements that reflect an idea in that passage from an array of correspondent and incorrect statements. Matching tests; tests of grouping words, sentences, or passages in relation to a passage; and picking out words, phrases, or sentences from an array of distractors when the correct choices are replications of the original passage use message recognition.

Message Reproduction

A fully compliant reproduction of the message, a paraphrasing, a word, a phrase, a sentence, or a whole story orally or in writing may be the object of a message reproduction task. Carroll (1972) cites a number of studies that use message reproduction tasks to get at comprehension. Goodman (1969) and Goodman and Burke (1973) ask the subject to retell a story immediately after an oral reading. Oral reading is a case of the task of message reproduction, as is copying in writing an entire message or specified parts of a message. Message reproduction may be with the message available, without the message available, or with parts of the message available.

Conclusion

The comprehension tasks cited here represent most of what is noted in the literature, observable in practice, and recommended in published programs. An important idea underlying the use of tasks to infer comprehension is that the inferences must reflect the characteristics of the task as well as comprehension. We know of no procedure that adequately separates the task from the inferences about comprehension save subjective reporting which carries its own obvious difficulties with respect to reliability. The term 'comprehension' is frequently reified in the literature, treated as though it has a referent that is somehow independent of introspective conceptions of comprehension. The term 'comprehension' is frequently treated as though it is the task that is performed to permit the inference that comprehension is taking place. Both of these errors are so common in writings about reading that the risk of accepting them as correct is heightened by familiarity.

Levels of Comprehension

A taxonomic approach to reading comprehension seeks to classify or categorize ideas about how we understand printed messages. When the categories are ordered according to some principle, a taxonomy may be hierarchical. Several principles of hierarchism are often applied to comprehension. Comprehension tasks may be ordered from easy to difficult, from simple to complex, or from earlier to later with earlier or lower levels assumed to be prerequisites to later or higher levels. The taxonomic and hierarchical ideas presented here relate to the idea of levels. The review in this section is selective but representative.

Review

Frederick Davis (1941) identifies nine "operational skills of reading comprehension:" 1) word knowledge, 2) meaning selection, 3) following the organization of a passage, 4) selecting the main thought, 5) answering questions directly answered in the passage, 6) answering questions from information in the passage 7) drawing inferences, 8) recognizing literary devices, and 9) determining the writer's purpose. Although his work precedes Bloom (1956), the skills are comparable to the items in the taxonomy of cognitive objectives (See Davis, 1971a). Davis (1941, 1944, 1967, and 1968) attempts to establish the independence of each identified skill area by computing the proportions of unique variance to shared variance. Thrustone (1946) reanalyzes Davis' work and finds Davis' skill areas to be not unique, but Davis (1971a) claims this is the result of not including the non-chance unique variance of the tests. Carroll (1972) cites only five of the nine Davis skills as being unique: 1) remembering word meanings, 2) following the structure of a passage, 3) finding answers to questions answered explicitly or in paraphrase, 4) recognizing a writer's purpose, attitude, tone and mood, and 5) drawing inferences from the content.

Holmes and Singer (1970) and Holmes (1966) assembled a list of skills from tests and computed the proportions of shared and unshared variance through factor analysis. The percent of total variance attributable to each skill in relation to speed and power of reading was determined. Raygor (1966) introduced key, unanswered questions of this work when he asked how the readability and validity of the selected tests of skills bears upon the outcomes of the factor analysis. Obviously, an array of tests is no more valid than the tests themselves unless the validity of each item in the array itself is established. No apparent theory of test selection accompanies Holmes' work, rather it seems to be based on assumptions that tests labeled reading or reading-related are tests of reading.

Geyer (1971), Williams (1971), Farr (1969), and Gibson and Levin (1975), among others, treat many of the psychometric approaches in detail. At the heart of the controversies about attempts to explain reading with measurement theory is the lack of construct validity (Bormuth, 1974), the fact that the tests that are used do not necessarily test what the test writers claim is being tested. The struggle to use mathematical models on any complex human function risks gross oversimplification, a tendency not to try to explain what is really being studied, and a pretentious sense of clozure upon completing complex statistical procedures. Max Black (1962) lucidly describes the trap that much psychometric research labeled reading research may inadvertently fall into when he notes "... a serious risk of confusing accuracy of the mathematics with strength of empirical verification in the original field" [p. 225].

Frank Guszak (1967) surveyed teachers' use of questions of recognition, recall, translation, conjecture, explanation, and evaluation. He found overuse of literal recall questions and weak use of inferential questions. Guszak speculated that this is true because teachers, at least the ones in his sample, lack an understanding of comprehension. Guszak's categories reflect the ideas in the taxonomy of cognitive objectives (Bloom, 1956).

William S. Gray continuously modified his view of reading as he studied and worked within the field. Writings between Gray (1919) and Gray (1960) are too numerous to note within this paper, and the 1960 view reflects what went before. Gray (1960) identified word perception, comprehension, reaction to what is read, and assimilation of new ideas into what was previously known by the reader as four major components or levels of reading. He envisioned these four components as classes of skills. He used them in a model to organize the myriad of skills that pervade the literature of reading.

Gray's work still stands as a viable viewpoint. Helen M. Robinson (1966) reexamined the work of Gray (1960) and revised Gray's model to include a fifth major aspect of reading, rates of reading. The concept underlying the term "rates" is more than the idea of simply varying the speed of reading. It heralds a rediscovery of purpose for reading, a point understood by Edmund Burke Huey (1908) in his discussions of selective reading, discriminative reading, and reading rates. Gibson (1972) and Gibson and Levin (1975) and others join in the pursuit of the effects of the reader's purposes. Gray (1960) and Robinson (1966) view comprehension as getting literal meaning of a passage and getting the implied meaning of the passage. Literal meaning is treated as "what the passage says" and is gained by "reading the lines." Implied meaning is treated as "what the passage really means" and is gained by "reading between and beyond the lines" (Robinson, 1966, pp. 29-30).

The Taxonomy of Educational Objectives: Handbook 1, Cognitive Domain (Benjamin Bloom, 1956), one of the most publicized of the taxonomic approaches to comprehension, treats comprehension in a way that includes more than reading comprehension. Comprehension refers to a "variety of communications[p. 89] which includes understanding oral messages, written messages, situations involving concrete materials, procedures, and arrangement of materials demonstrations experiments in physics or chemistry. Comprehension, in the taxonomy of cognitive objectives, is limited to literal understanding and includes only objectives, behaviors, or responses that can be observed and measured.

Translation, interpretation, and extrapolation are used as categories of comprehension in the taxonomy. Translation includes expressing an idea in language that is different from the original, making the message more abstract or less abstract, gleaning a principle from the message, or generating an example. Interpretation goes beyond paraphrasing to demonstrating understanding interrelationships in the message, and distinguishing between ideas in the message and one's own ideas. It is assumed that to interpret, one must first be able to translate. Extrapolation involves extending the ideas of the message to situations not referred to by the author. Extrapolition does not include application which required the subject to use an appropriate abstraction without prompting by the message that communicates the idea. Application requires that the student first comprehend. To extrapolate, the student must have interpreted. The taxonomy presupposes a hierarchical relationship between its elements.

Davis (1971a) classes Bloom (1956) and other categorical systems as "broad subjective analysis" or "armchair analysis" [p. 4]. Included are William S. Gray (1919) who cited coherent reproduction of the message, determining the most important idea, selecting closely related points and supporting details, getting information to solve a problem or answer a question, understanding the essential conditions of a problem, discovering new problems, determining lines of argument, and determining the validity of statements. A host of others fall into the same arena; Yoakum (1928), Gates (1935), Spache (1962), Cleland (1965), and Robinson (1966), to name a few. All seek to analyze reading through categorical systems.

Some are hierarchically ordered and some not. Bloom (1956) embodies an insightful reflection of the general concept of comprehension in relation to education. Barrett (1967), Herber (1970), and Smith and Barrett (1974) reflect recent application of this approach to reading comprehension.

Bloom's taxonomy spawned many adaptions of the comprehension categories in reading. Sanders (1966) provided an adaption in a listing of examples of questions, and descriptions of procedures for producing questions for classrooms based on the taxonomy of cognitive objectives. The classroom questions have been converted into reading comprehension questions by numerous investigators and authors of educational materials.

Harold Herber (1970) developed three levels of reading comprehension for application in content areas. The literal level of reading comprehension, according to Herber, involves word recognition, recognition of word meanings, identification of what the author's message says, but not necessarily understanding the author's message. The literal level is primarily associative. A second level, the interpretive level, includes deriving the meaning of the message, relationships between meanings of words and statements, and an interaction of the reader's previous experience and knowledge with the author's ideas. The applied level of reading comprehension is Herber's third level. It involves using ideas from literal and interpretive comprehension to generate ideas beyond the scope of the author's message. Herber uses the cognitive objectives of Bloom (1956), but he adds application under comprehension.

Ruddell and Bacon (1972) provide a taxonomic approach to comprehension skills based on a model of reading in Ruddell (1969 and 1970). The taxonomy includes one category; identification and recall under experience and memory, and three categories; analysis, integration, and evaluation under critical thinking skills. Problem solving and affective functions are separated from comprehension skills, reflecting the distinction between literal comprehension and application noted in the taxonomy of cognitive objectives (Bloom, 1956). Both problem solving and affective functions are shown as being involved with comprehension at all levels perhaps because they are part of the process of thinking. The Ruddell and Bacon (1972) model and taxonomic adaption are exemplary of an insightful attempt to use ideas from Bloom (1956), and Guilford (1960) in conjunction with psycholinguistic concepts, information processing schema, and communications theory.

Conclusion

For the purpose of this study, the Program Profile Instrument in Appendix A uses the Barrett (1972) and Smith and Barrett (1974) categories because they represent and reflect much of what others have done in pursuit of similar purposes. Barrett's four major categories of comprehension are: 1) literal, 2) inferential comprehension, 3) evaluative, and 4) appreciative. The Program Profile Instrument asks that the observer determine to what degree the reading program in question focusses on each of these categories.

Thomas Barrett (1972) provides a taxonomy of reading comprehension loosely based on Bloom (1956). The Barrett taxonomy includes four levels: literal recognition or recall, inference, evaluation, and appreciation. Literal comprehension involves recognition or recall of details, main ideas, sequence, comparisons, cause and effect relationships, and character traits are listed. Also listed under this level are inferences about predictions of outcomes and figurative language, an extension beyond the subcategories of literal comprehension.

Barrett's third category of reading comprehension is evaluation, a category characterized by judgment in the taxonomy of cognitive educational objectives (Bloom, 1956), and specifically not included under comprehension. Note that Bloom (1956) specifically limited the concept of comprehension to literal comprehension. Both Barrett (1972) and Herber (1970) share the idea that reading comprehension involves more than literal functions. Barrett's evaluation category involves judgments of reality or fantasy, fact or opinion, adequacy or validity, appropriateness, and worth, desirability or acceptability of the author's ideas. Barrett's fourth and last category is appreciation. He includes determining what the author did to produce an emotional response, and understanding literary techniques used to get readers to identify with characters and incidents. Reactions to the author's language and becoming sensitive to techniques the author uses to create imagery are also included under appreciation in Barrett's taxonomy.

The Purpose for Reading

Three program approaches to the purpose for reading are identifiable in the literature of reading. First, much of what we ask students to try to comprehend assumes that the text itself will set the real purpose for reading. Hence, teachers may merely assign reading when operating on this assumption. A second approach assumes the teacher sets the purpose for reading through the instructional strategies and tactics employed. A third assumption holds that the reader sets the purpose for reading; and indeed, the introspective accounts reported by Gibson and Levin (1975) suggest that this may be the case regardless of the assumptions made by authors or teachers.

Viewpoints

Halliday (1970) identifies spoken language as a species-specific result of the formulated purposes of language users. It seems to follow that reading is a culture-specific result of the formulated purposes of users of written language. Bormuth (1974) distinguishes between intention and perseverance, two concepts underlying motivation. Intention involves what people decide to do or pursue, while perseverance refers to how an individual attends to a task. The former, intention, involves deciding not only what to try to read, but why to read. Bormuth relates these ideas to literacy. J. Mackworth (1971) states, "We read in order to obtain information" [p. 67]. Rothkopf (1972) shifts attention from the structural variables of verbal learning studies to concerns about how the subject controls processing when learning from written discourse. Chall (1973) believes that "... everyone agrees that reading comprehension is the whole purpose behing learning to read" [p. 126].

Goodman (1970) analyzes reading in terms of comprehension. He states that comprehension is "... the only objective in reading ... " [p. 28]. He goes on to identify important requirements of reading programs. Reading programs should help youngsters to develop sophistication, flexibility, a sense of significance, and a critical sense of skepticism in all of the tasks of reading. The reading program that neglects these aspects falls short of society's purpose for the existence of reading programs.

Hockberg and Brooks (1970) consider the individual's intentions "of fundamental importance to any understanding of what the reading process is all about" [p. 304]. The point is that intention and comprehension are interdependent. Programs that do not foster a purposeful search for information and ideas offer only narrow possibilities for developing comprehension.

H. A. Robinson (1975) describes strategies for previewing what is to be read in order to guide study. He identifies questions for readers to answer that are presented before reading as a common form of teacher-initiated purpose. Often, reading program procedures assume that the text sets the purpose for reading, and indeed, an introduction that is well constructed is designed to help do just that. However, many procedures may be found that neglect introduction completely. H. A. Robinson (1975) identifies unintroduced round-robin oral reading and assignments such as, "Read the next chapter" [p. 45] as instances of either no attention to setting a reading purpose or letting the text itself set the purpose. Clearly, texts that are designed to set a purpose should be used differently than those that are not.

Another way of treating the purpose for reading involves guiding the reader to set the purpose for himself. The identification of problems that reading helps to solve may fit this category. A study group in a content-unit teaching strategy may set its own purpose for reading specific material that is identified as helpful in finding out what is required to solve problems in the unit. Youngsters pursuing individualized projects set their own purposes as they design or select tasks for themselves that fit within their own ranges of ability and interest. Gibson and Levin (1975) and Gibson (1972) represent examples of the information processing view that directly approaches the idea of purpose for reading.

Gibson and Levin (1975) seek to abandon model making by declaring that it is not useful to attempt a single model of the reading process because people read differently for different purposes. They describe principles of reading that form a theoretical framework. They use an interesting form of introspective case study at one point to approach purpose in relation to reading. A number of individuals are asked to describe what is going on in their thinking as they read; a young scientist, a newspaper columnist. They offer introspective descriptions involving reading a novel, the dictionary, and a poem. The process of reading involves frequent reexamination and restructuring of the purpose for reading. The description of the part that purpose plays in reading, particularly with respect to information processing, seems critically important in appraising the characteristics of reading programs. Does the program seek to have the reader establish his own purpose? Does the text set purpose for reading or does the program direct the teacher to set the purpose for reading? Three categories are included to reflect these ideas. Is the purpose for reading according to the published reading program 1) determined by the text?, 2) determined by the teacher?, or designated specifically to be 3) determined by the student? These categories are listed in the Program Profile Instrument in Appendix A.

Inquiry Into Print

The tactics involved in subroutines of inquiry into print seldom occur in total isolation from one another, making them difficult to study. However, it is helpful to consider them separately for the purpose of getting at what is included in published programs and what is absent. Burmeister (1975) provides us with a list of tactics that make up the pedagogical conventions of most print inquiry subroutines: sight recognition, context clues, morphology, phonics, and dictionary use [p. 1]. These elements are found in most programs of reading instruction with emphasis on one or several of them varying with the viewpoints underlying the programs. The area of context clues can be extended to include tactics relying on information from pictures, diagrams or maps; syntactic structures; semantic structures; and the environment or greater context in which the printed material is couched. The category of sight recognition is basically the use of the shape of the word or configuration. Morphology is sometimes called structural word analysis which involves encountering a whole word and breaking it into parts. Structural word synthesis involves encountering parts of a word and blending them together to form a word. The five conventional word attack skills are augmented and restated to form nine categories that are included here.

Configuration

Configuration is the shape of the word, including its length. Many words are identified by shape. Logos, "men" and "women" on lavatory doors, "stop" on traffic signs, and the youngster's own name are often first recognized by shape. The process of recognizing words by shape is much like the identification of other things: the shape of a car, ship, or airplane in the distance; the outline of a familiar person; or the shape of a building, a skyline, or land forms on a map. Though there are severe disadvantages to identifying words or phrases by the shapes of their graphic displays, we can not deny that people do this and that reading programs may foster it from time to time. A disadvantage is that a word may have a shape that is similar to another word; "ran" and "run", "toot" and "boot," for instance. The word method capitalizes to some degree on configuration (N. Smith, 1965).

Phonics

Phonics is a widely used tactic for inquiry into print. In reading, phonics is a pedagogical process that approximately reflects the relationships between phonemes and graphemes. It should not be confused with phonetics, "the study of the production, transmission, and reception of language sounds," nor with phonemics, "the procedures for establishing the phonemes of language" (R. Wardhaugh, 1969, p. 157). A phoneme is a group of sounds or allophones that are treated as one sound in spoken language. An allophone is a variant of a phoneme that does not signal a difference in meaning. A grapheme is a group of marks or allographs that are treated as one mark in writing. P. D. Allen (1972) develops the grapho-phonemic cue system as a functional source of information for the reader. Programs may attempt to teach phonics directly, indirectly, or in some combination of the two. Phonics always involves sounds, which distinguishes it from structural analysis and structural word synthesis which may or may not involve sounds. Phonics focusses on elements that are usually smaller than words.

Structural Word Approaches

Structural word analysis involves encountering and considering a whole word and then breaking the word into parts. Root words and affixes or suffixes and prefixes are usually the focus of this tactic. Syllables and the process of syllabication or breaking the word into syllables are also prevalent considerations. Letters and letter combinations qualify as word parts. Structural word analysis is the counterpart of structural word synthesis which involves the same units, but the process differs. Structural word synthesis focusses first on the word parts and proceeds to put the parts together to form a word. Structural word synthesis may involve the use of tasks and exercises for youngsters where parts of words are dealt with in isolation from the whole word. A learner may be asked to blend parts together to form parts of words as well as whole words.

Dictionary Skills

Dictionary use holds a prominent place in the minds of many who concern themselves with inquiry into print. Reading programs, professional books, teachers, parents, and peers commonly recommend looking up unknown words in the dictionary to resolve uncertainty. Burmeister (1975) includes dictionary use as a word attack skill, but relegates it to a category of "last resort" [p. 2] because it takes too long. Dictionary use is a way of establishing constraints on guesses about the meaning of an unknown word. Dictionary use interrupts the reading process and can not supply the contextual information required to determine full meaning. Dictionaries may be recommended from a "typical eighteenth-century authoritarian attitude toward language" [p. 46] cited by Fries (1962) as a case of treating the dictionary as the source of correct usage. When we encounter the evidence of change in language use that occurs over time, it is difficult to maintain a concept of ossified correct language. Historically, reading teachers have not been required to learn much about how language works.

Syntactics

Allen (1972) identifies a syntactic cue system that helps to organize information. The syntactic cue system involves the arrangement of grammatical structures. If the unknown print in question is a word, then the reader can glean important information about the word from the placement of that word in a phrase, clause, sentence, and paragraph. The syntactic cue system is a contextual tool in that it organizes grammatical information not found in the word, but rather around the word. The part of speech of a word can be determined from its placement in a sentence. When subjects take a cloze test, most of their answers are syntactically acceptable, even though they may not write the exact word in the blank. A conventional cloze test asks the subject to write the correct word in a blank substituted for a word. Bormuth (1975a) substitutes lines of uniform length for every fifth word to get a cloze score which is a percentage of possible correct cloze responses in a 250-word passage. Subjects usually supply the correct part of speech in a blank even when they can not name the part of speech. They do this well if they can speak and understand the language, a task accomplished reasonably well, usually years before entry into school.

Semantics

We noted that the syntactic cue system is predominantly a contextual tool. Allen (1972) places the semantic cue system in a similar category. The meaning of the language surrounding the unknown print aids the reader in determining what it means. Most linguistic research separates syntactic and semantic analysis, but in real language they work together. If the sentence, "Jeremy rode the _____," is encountered, we find out from syntactic constraints that what goes in the blank is a noun; a person, place, or thing to some grammarians. Noun-ness is part of the meaning of what goes in the blank. We can eliminate all noun-nouns from our array of possible words, severely reducing our uncertainty. The semantic cue system helps us reduce uncertainty by indicating that only those nouns which are ridable fit. If our sentence is, "Jeremy rode the galoonapeck," we get to know that a 'galoonapeck' is ridable and that it has been ridden, specifically by Jeremy providing the author is telling the truth and not fantasizing. It may be that 'galoonapeck' is just another name for something with which we are already familiar, or it may not be the case. Either way, it is clear that both syntactic and semantic information can be organized by a speaker of the language to provide a systematic approach to understanding previously unknown displays of print.

Pictures, Maps, and Diagrams

The part that pictures, maps, and diagrams play in inquiry into print is subject to controversy. One position holds that to really get youngsters to read, they should encounter printed language without pictures because pictures may make it unnecessary to use the language processes in order to get meaning from the alphabetic writing provided. Another position suggests that the pictures are an additional aid that can motivate youngsters to use the alphabetic writing to find out more or something about the picture encountered. The fact is that most programs use pictures, maps, and diagrams, and that it is possible to make reasonable guesses about unknown displays of print from the pictures. Pictures can offer useful constraints on a reader's guesses about an unknown word. If a picture shows children playing baseball, the reader is unlikely to imagine a football when he encounters the word 'ball.' Since most published programs include a generous supply of illustrations of various types, we include the category of the interpretation of contextual, graphically displayed pictures in our questionnaire for analyzing published reading programs.

Environmental Context

The setting in which the print is found helps the reader constrain his guesses about unknown words. Halliday (1970) identifies situations, social or interpersonal relationships, and text as three levels of analysis of the functions of language. The environmental context reflects both situational and social aspects of the functions of language, in this case functions of printed language. An environmental context is used to reduce uncertainty. The environment provides information that acts as a contextual constraint on guesses about unfamiliar displays of print or unknown words. Expectations are severely modified by what we know about a particular display of print not from looking at the print but from knowing about it, where it is located, its format, and its author. We know much about the differences between what is to be found in a dictionary and what is to be found in a novel. The instructions for shifting a ten-speed bicycle may come with a bike from a bike shop, and we do not expect a recipe for pineapple upside-down cake between the covers of our bicycle instruction booklet. The very fact that an unknown word is encountered in a basal reading textbook or in an isolated word list in school signals a youngster not to expect obscenities, controversial insights, or loaded content.

Previous experiences with stories in other basal reading textbooks or test situations establish expectations and constraints.

Nine Categories

Nine categories of ways to inquire into print are noted. An unknown word is used as an example of a previously unencountered graphic display of print. The nine categories include: 1) configuration, 2) phonics, 3) structural word analysis, 4) structural word synthethis, 5) dictionary skills, 6) syntactic context, 7) semantic context, 8) the use of pictures, diagrams, and maps, and 9) the use of the environmental context. The categories presented here represent tactics for inquiry into print. They are processes rather than unit-bound elements of linguistic inquiry, although some exhibit unit-specific characteristics. Of the words that proficient readers understand and can recognize in print, most are learned by encountering them as unknown words in print. Only a few words, the initial sight-word vocabulary, are learned through direct instruction and this usually takes place in beginning reading instruction.

Chapter 9

LANGUAGE

Three approaches to the area of language are used here to analyze reading programs. One approach asks what unit of language the program emphasizes in instruction. A second approach asks how language is viewed according to the materials prepared for the teacher and the student. Third, what view of meaning is evident, either explicitly or implicitly? Each of these approaches focusses on what reading programs exhibit from a different conceptual framework with respect to language.

Units of Emphasis

The purpose here is to establish a list of units that will aid in differentiating the focus of published reading programs. The list begins with the smaller units and ends with larger units. The names of units of traditional grammar are used because it is assumed that most educators are familiar with them.

Units

Letters

The smallest unit of written language usually considered in reading programs is commonly called the letter, "... a written symbol or character representing a speech sound; a component of an alphabet" (Morris, 1969, p. 75). Gelb (1952) suggests that our alphabet began as a group of symbols representing speech sounds, citing the Greek alphabet as a predecessor. Both spoken and written language change, but printing conventions lag behind spoken language. Spoken language constantly moves away from written language, forever distorting the idea of a one to one relationship between written characters and speech sounds.

Gelb (1952, p. 13) distinguishes logographic writing from alphabetic writing. The letter "B" is written logographically as "B," but alphabetically it becomes a spelling problem and might be written "be" or "bee." The unit called 'letter' is the name of the letter, its logographic counterparts, and the group of corresponding sounds that are related to it both in ordinary language use and in artificial systems of phonics created for teaching reading.

A grapheme is a group of marks perceptually treated as one element in written language. Examples are A, *A*, a, or b, *b*, b. Letters, the logographs of our arabic numeral system, the logographs of Roman numerals, the various commonly used logographs of printed language, the ampersand, dollar sign, mathematics symbols, and punctuation marks are of concern. The term 'letter' served well enough to identify the unit size on which our first category focusses.

Smaller-than-Syllable Units

There are many linguistically and pedagogically defined units with more than one letter that lack a vowel as the nucleus (Wardhaugh, 1969, p. 160) and, as such, are smaller than a syllable. A grapheme also includes combinations of letters when they are treated as units, as in the case of a digraph. Durkin (1972) lists consonant digraphs and vowel digraphs. A digraph is "a pair of letters that represents a single speech sound, such as the ph in pheasant ..." (Morris, 1969, p. 369). Burmeister (1975) lists double consonants and vowel pairs, and Goodman and Burke (1973) list the submorpheme, a letter or letter combination smaller than the morpheme, the smallest unit of meaning. Affixes, or prefixes and suffixes fall in this category if they do not create a syllable by themselves. The s in cats is not a syllable. A free morpheme is at least a syllable. All the units that are made up of more than one letter but do not constitute a syllable are included in a category of smaller-than-syllable. The smaller-than-syllable category is listed between letter and syllable in our list of units.

The Syllable

The syllable is larger than the letter, smaller than a word, and traditionally taught in schools. In English, the syllable is a printer's convention that dictates where words are divided at the end of a line. Glietman and Rozin (1973) are elaborating on the function of the syllable in reading. Mathews (1966, p. 5) traces the use of the syllable in reading instruction back 2,000 years to the Greeks. Spanish beginning reading often focusses on the syllable. A syllable is something defined as "a unit of the phonological system with a vowel as its nucleus" (Wardhaugh, 1969, p. 160). It may also be defined as "one or more letters or phonetic symbols written or printed to approximate a spoken syllable"

(Morris, 1969, p. 1302).

The Word

A word is "a sound or combination of sounds, or its representation in writing or printing, that symbolizes and communicates a meaning and may consist of a single morpheme or of a combination of morphemes" (Morris, 1969, p. 1474). Wardhaugh (1969) defines a word as "a morpheme or combination of morphemes" [p. 161]. In print, by convention, words are separated from one another by white spaces. No such spacing using silence is usually evident in spoken language. The word is a unit that is recognizable predominantly by knowledge of print (Jones, 1972).

The Phrase

In traditional grammar, the phrase is "... a group of words used as a single part of speech and not containing a verb and its subject" (Warriner, Whitten, and Griffith, 1958, p. 59). A part of speech is the name of the function of a unit in language. Traditionally, the parts of speech are noun, pronoun, adjective, verb, adverb, preposition, conjunction, and interjection.

A noun is the name of a person, place, or thing. A pronoun is used in place of a noun as in, "He is here," where he is used in place of the name of whoever he is. An adjective tells something about or modifies a noun or pronoun, and an adverb does the same for a verb, adjective, or another adverb. An adjective or adverb may provide the same information that a clause provides if we analyze it using the upside-down tree diagrams of deep structure as defined in transformational grammar (Chomsky, 1957 and 1965). A verb expresses action or a state of being. Traditionally, a preposition is supposed to show the relationship between a word in a sentence and a noun or pronoun in the same sentence. This matter is not straightforward. Any word may be used as a noun in English. The definition is inadequate for identification of prepositions. Most people recognize prepositions by having learned a list of prepositions such as "at, about, around, across, etc." A conjunction connects equivalent words, or groups of words such as nouns, verbs, or clauses. The traditional phrases are verb phrases, adverbial phrases, prepositional phrases, conjunctive phrases, and interjective phrases.

Carroll (1964) considers the part of speech categories as concepts of form-class, a group of entities that exhibit identifiable similarities. Programs that focus on groups of words that do not make a clause, but function as a part of speech are identified by the phrase category. In the listing here, the embedded clause in an adverbial or adjectival form is not treated.

The Clause

The clause is larger than a phrase because it includes both a subject and verb phrase at least in deep structure. The clause is listed before the sentence because a sentence may be made up of more than one clause. A clause is defined by Warriner, Whitten, and Griffith (1958) as "a group of words that contain a verb and its subject and is used as a part of a sentence ... p. 71 . A main clause can function independently as a sentence while a subordinate clause is dependent on other parts of a sentence.

The Sentence

Wardhaugh (1969) defines a sentence as "an arrangement of words for which a structural description is provided by grammar" [p. 159]. Morris (1969) defines it as "a grammatical unit comprising a word or group of words that is separate from any other grammatical construction, and usually consists of at least one subject with its predicate and contains a finite verb or verb phrase" [p. 1181]. Using the sentence as a unit ventures into the uneven territory of printers' conventions. Ordinarily, sentences are easy to identify in print because they begin with a capital letter and end with a period. Most printed discourse is organized in sentences.

The Paragraph

The paragraph suffers definitional vagueries similar to words and sentences. Printers' conventions contribute unevenly to what we use for a paragraph. A paragraph is "a distinct division of written work or composition that expresses some thought or point relevant to the whole but is complete in itself and may consist of a single sentence or several sentences" (Morris, 1969, p. 950). Paragraphs may be deliberately structured in terms of ideas expressed, or they may be the result of spacing solely for appearance. Strang and Bracken (1957) describe various paragraphical forms attributed to Bissex and others. They include examples of the inductive, deductive, and balanced paragraph. Warriner, Whitten, and Griffith (1958) define a paragraph as "... a series of sentences developing one topic" [p. 196] and develop the traditional idea of a topic sentence and ways of organizing a paragraph.

The Story or Passage

Units that are larger than a paragraph and smaller than a book or volume carry various labels such as chapter, verse, unit, and essay. Anything in this category is included under the listing of story or passage.

The Chapter

A chapter is a grouping of stories or passages that is smaller than a book or volume. Chapter may be used to designate a grouping of stories. The term unit is sometimes used, borrowing the predilections of educational terminology that refers to units of study or content units. Some basal readers group stories in the traditional categories of children's literature such as folk tales, realistic fiction, fairy tales, fantasy, and information.

Larger than a Chapter

This division includes the books included in a basal reader series. It also includes the tradebook or library book that contains a single longer story. Books that are organized around a particular content area are included. Anthologies are included along with books by one author. Essentially, most basal readers are anthologies accompanied by a teacher's manual and some other accouterments.

Beyond the book or volume is the category of content area. This reflects the various disciplines of science and knowledge as well as subject matter areas as traditionally organized in the curricular structures of education.

Application

A group of units are listed and defined. The units are drawn from traditional grammar. They are listed in the order of increasing size. The principle of size is violated to some degree because the units of traditional grammar are not consistent with real language. The terminology of traditional grammar is used because most people are expected to be familiar with it.

Views of Language

Wardhaugh (1971) refers to three basic views of language; nativism, behaviorism, and cognitivism. Nativism has its roots in philosophic idealism which holds ideas to be real. Behaviorism has its roots in realism which treats tangible entities as real. Cognitivism is rooted in experimentalism which treats everything, ideas and physical objects as real, and often dispenses with theories of reality because they can, in this view, distinguish nothing from anything else. The views identified seldom occur in their extreme forms in modern writing, but they can serve as benchmarks to help identify basic characteristics of reading programs.

Language is Innate

Nativistic views generally hold that language is innate. Lenneberg (1967) suggests that we have a biological predisposition to learn language. Chomsky (1965) postulates a language acquisition device. Peirce (In Buchler, J., ed., 1955) writes of abductive or retroductive inference, a way of thinking and reasoning that occurs in the organism prior to having knowledge of the phenomenon of concern. Reading programs based on this view tend to let language develop rather than attempt to develop it. Curriculum plans are couched in terms that suggest that youngsters develop their own grammars as they encounter reasons for doing so.

Language is Speech and Writing

Bloomfield (1933) focussed on the observable and measurable aspects of language. The sounds of speech are observable. The marks of writing are observable. Behavioristic views tend to treat what is observable as the entity of concern. The extreme philosophic view underlying this approach is the idea that what is real is what is physically observable. Reading programs that treat language as the hearable sounds of utterances and/or the visible marks of writing fall into this category.

Language is a Process Based on Communication of Meaning

This view holds that an internal, unobservable process is inferrable from what is observable. Both what is observable and the inferred process are treated as real. Rules of language can be inferred from observations of how language is used, even though the user may not be able to state the rules. Wardhaugh (1971) and Athey (1971a) use the term "cognitivism" to identify this basic camp. Chomsky's (1965) concepts of deep structure, clause, and phrase relationships that underlie the observable sentence are part of this view. Gibson and Levin (1975) relate reading to its purpose, the communication of meaning, and postulate variation in the process as a function of purpose. Robinson (1966) edges up to this view in her identification of flexibility in reading rate as an indicator of proficiency in reading. Halliday (1970) poses the problems that using language can solve as a way of getting at the purposes of language. Reading programs that treat language as a process that involves inferrable rules and is used to communicate meaning fall into this category.

Meaning

Many reading programs are said to be teaching reading for meaning. However, the term, 'meaning,' has many referents and it is not clear that all reading programs share the same referent for 'meaning.' From time to time, it is clear that the use of the term, 'meaning,' may be little more than a promotional device if no definition or specific referent can be gleaned from the material.

This quandary is understandable to some degree because philosophers and linguists face unresolved difficulties with the various referents for the term 'meaning.' Willard Van Quine (1961) states, "Pending a satisfactory explanation of the notion of meaning, linguists in semantic fields are in the situation of not knowing what they are talking about" [p. 47]. Usage of the term, 'meaning,' in reading programs suggests we are inheritors of the same difficulties, in the same boat, so to speak, struggling to navigate with a set of unfinished maps.

Morphemic

Many reading programs focus on the morpheme. A morpheme is the smallest unit of meaning. "Both cat and the *s* in *cats* are morphemes" (Wardhaugh, 1969, p. 156). *Cat* is called a free morpheme because it can stand alone. The *s* in *cats* is called a free morpheme because it is bound to another morpheme.

Lexical

The focus of lexical meaning is the word and what the word refers to. The word is an obvious preoccupation in our society, and reading programs reflect the expectations of society to some degree. Vocabulary lessons that help learners associate a word and a meaning, or a word and a group of possible meanings without the full context of language are classified as focussing on word or lexical meaning. A dictionary is a lexicon. Dictionary skills that focus on the word fall in the category of focussing on lexical meaning. Gelb (1952, p. 250) states that meaning is a "... mental association between a sign and a referend, that is a thing meant, such as the association between a word and a referend or between a visual sign (with or without a word) and a referend." Peirce (1897, p. 99) states that a sign is "... something which stands to somebody for something in some respect or capacity." The lexical category of meaning reflects the ideas of Peirce and Gelb to some degree.

Synthetic Fusion

Another aspect of meaning reflects the idea that in reading, the reader first identifies the meanings of words in a sentence and then puts the word meanings together to make the meaning of the sentence. The category of synthetic fusion refers to this idea of building sentence meanings from word meanings.

Contextual Meaning

Contextual meaning refers to the use of the full context of the author's writing. Included here are strategies of teaching that involve phrases, clauses, sentences, paragraphs, books, etc. Words are only incidentally the focus of this category, while language use and the total fabric of the author's meaning in a passage tends to be of prime importance.

Learning

Two approaches to the area of learning are used to classify reading programs. The first approach focusses on global views of learning. It parallels views of language in terms of the philosophical roots that underlie the views. The second approach asks about how the learner is viewed. What are the major characteristics assumed to be exhibited by learners? Certainly, there are other, viable approaches to how learning is treated in reading programs, but this cross-hairs tactic casts views of learning against views of the learner permitting a theoretical approach to the internal consistency of reading programs.

Views of Learning

Contemporary views of learning are divided into two major groupings in the literature of learning theories. Hilgard and Bower (1975) identify the stimulus-response and cognitive approaches. Bigge (1971) refers to them as behaviorism and cognitive-field theories. In perusing the views of writers in the field of reading, it is clear that another category must be included to account for tradition. In some sense, we use the term 'tradition' to represent a gap, perhaps a lag, between theory and practice. Reading instructional materials reflect marketing principles, which in turn reflect the expectations of purchasers who make decisions based as much on tradition as on educational principles. As a result, we press mentalism, an older, less defensible category of learning theories into service along with the two contemporary categories. Bigge (1971) uses mental discipline to represent theories based on concepts of mind substance. Hence, we present here three categories of learning theories using mentalism to represent the mental discipline theories, behaviorism to indicate contemporary stimulus-response views, and cognitivism to tag the Gestalt and field psychology views.

The field of learning is controversial, so beset with blends of new and old ideas, agreements and disagreements that global categories of mentalism, behaviorism, and cognitivism can not do absolute justice to the intricacies of contemporary viewpoints of individuals. However, the purpose here is not absolute justice as viewed from the learning theorist's stance. Rather the purpose of the use of these global categories is to identify the boldest aspects of learning theory as they project broken shadows onto the controversial field of practice in reading instruction.

Mentalism

Mentalism is probably the oldest of the families of ideas about learning. As such, it is probably the least defensible in contemporary circles of learning theorists, but it lives in the practice of reading instruction because of tradition and the inevitable gaps between theory and practice. Bigge (1971) includes theistic mental discipline, humanistic mental discipline, natural unfoldment, and Herbartian apperception as key schools of thought in the category of mentalism.

Theistic mental discipline or faculty psychology postulates mental faculties or muscles of the mind which teaching seeks to exercise in a disciplined fashion to make them stronger. Humanistic mental discipline or classicism seeks to cultivate the intellect through training of intrinsic mental powers. Natural unfoldment or romantic naturalism promotes a hands-off or permissive teaching approach in order to permit the assumed good and natural characteristics of the individual to develop. In Herbartian apperception or structuralism, teaching seeks to add new ideas or mental states to a collection of innate or previously acquired ideas or mental states that reside in the subconscious mind as an apperceptive mass that grows. Mentalism encompasses much of what is common sensically thought of as learning in relation to teaching. Exercises, training, letting the child develop, and acquiring new ideas are familiar phrases in reading instructional literature that reflects the traditions and expectations of teachers and the public, and in turn the marketing approaches that underlie our instructional material.

Behaviorism

Behaviorism is used here to represent the various views of learning based on relationships between stimuli and responses. Hilgard and Bower (1975) describe its philosophic root as empiricism. A key concept is associationism, observed relationships between contiguous events. Bigge (1971) includes the S-R bond theories, and conditioning with and without reinforcement as key ideas. Connectionism or the S-R bond theories promote the acquisition of desired S-R connections in teaching using identical elements to teach and test. Conditioning without reinforcement views teaching as promoting desired responses to appropriate stimuli with reflexes or conditioned responses as a central concept. Conditioning without reinforcement views teaching as arranging changes in the environment systematically to increase the probability of desired responses with reinforced or conditioned responses as a guiding idea. Hilgard and Bower (1975) identify peripheral intermediaries or response relationships, the acquisition of habits, and trial and error approaches to problem solving as key distinguishing concepts of this view. Behaviorism is a contemporary view that, unlike mentalism, continues to grow and remain viable in the field of learning theory, and it is expected that it is in evidence in modern reading instructional materials. Teaching seeks to promote the appropriate response rather than an essential insight. In reading instruction, the focus is on vocabulary associations, sound-symbol relationships, responses to associative tests, and convergent responses to text.

Cognitivism

Cognitivism is another contemporary view of learning. Hilgard and Bower (1975) find it based on philosophic nationalism, and focussed on Gestalt views and ideas of information processing. Bigge (1971) includes Gestalt psychology, configurationism, and field psychology or positive relativism as basic psychological systems underlying cognitive approaches to learning. Gestalt psychology spawns the promotion of insights as an emphasis in teaching. Configurationism seeks to help students gain good or high quality insights, while cognitive-field approaches seek to promote new insights into the situations in which they find themselves. Hilgard and Bower (1975) identify central brain processes, the acquisition of cognitive structures, and problem solving as key ideas in cognitivism. Teaching seeks to promote an essential insight rather than a response to a situation. In reading instruction, the focus is on meaning, pattern, rules, principles, and the divergent response to text is honored as an important part of reading.

View of the Learner

Two assumptions about the learner provide insights into learning theories: an assumption about the morality of the learner and an assumption about the actionality of the learner. These assumptions are usually made with the child in mind as the learner. These two assumptions function as a priori conclusions that play a part in guiding the construction or selection of conceptual elements that are included in the learning theory.

Actionality and morality are concepts of innate characteristics of the learner. In most theoretical constructs of learning, the actional and moral categories are assumed to be unalterable, basic to human psychological make-up, intrinsic characteristics, qualities, dispositions, or aspects of the essence of the untouched primitive state before being influenced by environment.

The moral aspect of human nature has three basic alternatives. Man may be evil, good, or neutral. Some early American educational programs based on religious persuasions considered the child essentially evil. A second alternative moral view holds that man is basically good. The child is treated as part of nature, to be protected from corruption and allowed to develop in a natural environment that permits the innate good to emerge. In the third moral view, the child is neutral, neither good nor bad. This view, moral neutrality, operates as a basic tenet of contemporary learning theories. As a result, the moral categories regarding assumptions about learners in reading programs are not examined. Modern programs are assumed to be based on the presupposition that the child is morally neutral. The actionality views fall into three categories; active, passive, and interactive. The three views of actionality are used to help identify characteristics of reading programs.

Active

A number of learning theories use the assumption that the child is active according to Bigge (1971). Of the mentalistic learning theories, faculty psychology, classicism, and romantic naturalism assume the child is active. None of the stimulus-response theories assume the child is active. In cognitivism, Gestalt psychology assumes the child is active while configurationism and positive relativism do not. Assuming the child is active means that the child may be capable of self determination, ready to act upon the environment.

Passive

Of the mentalistic theories of learning, only structuralism, or Herbartian apperception assumes the child to be passive according to Bigge (1971). All of the stimulus-response psychologies assume the child is passive. None of the cognitivist positions assume passivity of the child. Assuming the learner or child is passive places the environment in the position of the driving force behind learning. Learners are shaped by the forces that act upon them, and by their environments. Learners are viewed as essentially reactive to the environment.

Interactive

Bigge (1971) indicates that none of the earlier mentalistic theories of learning, and none of the stimulus-response theories assume the learner to be interactive. In addition, Gestalt psychology does not assume the learner to be interactive. Only configurationism and positive relativism are based upon the assumption that learners are interactive. Interactive means that the learner acts upon his or her environment, and that the environment acts upon the learner. Learning is the interaction of the learner with the environment.

CHAPTER 11

Teaching

Four approaches to teaching are used to analyze reading programs. One approach seeks to identify the pedagogical techniques recommended in reading programs. A second approach focusses on how programs deal with reading problems. The role of the teacher that the reading program suggests is the subject of a third approach. The curricular thrust reflected in the program is the fourth approach. Each of these approaches includes classification categories drawn from different segments of the literature. The categories are not mutually exclusive.

Pedagogical Approaches

Pedagogical approaches are ways of conducting instruction that are recommended in the literature of reading. Major tactics are noted, and it is recognized that others exist. Chall (1967) notes nine common labels used to classify reading programs: 1) conventional basal, 2)phonics programs (partial or supplemental), 3) phonics-first programs complete, 4) linguistic approach, 5) initial teaching alphabet, 6) responsive environment, 7) individualized reading, 8) language experience, and 9) programmed learning. Chall's focus is on beginning reading. This work focusses on the middle grades. Some overlap is evident, but the categories of this section vary considerably from Chall's categories.

Categories in this work include the directed reading lesson, content unit teaching, literature, informational approach, the language-experience approach, phonics, word recognition, total individualization, individualized projects, the descriptive-linguistics approach, and programmed materials. These categories are not mutually exclusive, but the response form used permits a classification with respect to emphasis. A program may include one, several, or all of the elements listed in varying degrees of emphasis.

The Directed Reading Lesson in a Basal Text

Zintz (1975) provides a generalized concept of a directed-reading lesson drawing from a number of widely used basal-reading programs. Major categories of elements found in directed-reading lessons are described: 1) motivating and interest, 2) making sure of vocabulary, 3) guided silent reading, 4) interpreting the story, and 5) providing related activities. Spache and Spache (1969) provide a similar conceptual framework specifically for primary grades involving: 1) introduction of vocabulary, 2) silent reading, 3) oral reading, 4) skill building, and 5) supplementary activities. In describing basal uses for intermediate grades, Spache and Spache (1969) note that, "the three-group reading plan strongly persists..." [p. 90] in the intermediate grades in spite of the recognized range of abilities.

The directed-reading lesson can be adapted to a group, several groups, or an individual, but usually occurs with attempts to produce homogeneous grouping.

The Directed-Reading Lesson in the Content Areas

The directed-reading lesson in the basal text is a way of introducing and working with a story. The general element of a directed-reading lesson can be adapted to fit stories found outside a basal reader and passages from content areas other than literature. Herber (1970) describes an instructional framework, a way of helping youngsters get into passages in various content areas. The instructional framework is an insightful approach to conducting a lesson with various content area passages. He includes building background, silent reading, and follow-up activities as elements of a directed-reading lesson. Basal reader programs may, in some instances, recommend the use of the directed-reading lesson approach to teaching reading in the content areas.

Content Units

Content-unit teaching in reading involves organizational tactics that focus on integrating not only content, but activities, teaching strategies, and the sequence of events. "Descriptive titles for this concept include resource units, teaching units, activity units, core units, and survey units" (Heilman, 1972, p. 435). Zintz (1975, pp. 323-327) identifies five generalized steps that occur in unit teaching: 1) orientation, 2) teacher-pupil planning, 3) gathering information, 4) sharing information, and 5) culminating activity.

Orientation involves creating class interest, identifying the scope of the content problem, and helping students to understand why the unit warrants study. Through teacher-pupil planning, questions about the content are identified. Some questions come from class members while some are sourced in informational materials, the teacher's ideas, or curriculum guides. The crux of reading involvement may center on the use of reading as a tool in the information gathering phase because written materials represent a basic resource.

Purposes for reading are usually set by students themselves as they decide what to read or do to solve the identified problems or to answer the questions they themselves have asked about the particular segment of a content area that is encompassed by the unit. Often, the prospect of presentation, to share the information that is found, sets an immediate purpose for reading. Sharing information in some presentational mode; writing speaking, putting on a play, preparing a bulletin board, etc., serves to increase the span of concepts students encounter (Smith, Goodman, and Meredith, 1970). It also helps to ferret out misinterpretations through discussions which are a logical outcome of sharing. Culminating activities such as a final report, a completed notebook, or a presentation to parents or another class help to summarize what went on in supervised study sessions. Small, ad hoc heterogeneously structured groups are particularly useful in unit teaching. Reading skills can be taught formally or incidentally as they are really needed to solve the problems of the unit.

The Literature Approach

Libraries include a great resource of materials specifically written for children or originally written for adults but found to be of great interest to children. Huck and Kuhn (1968) and Smith, Goodman and Meredith (1970) provide insightful descriptions of the uses of children's literature to teaching reading.

At the heart of the literature approach is the idea that the literature available to children, particularly in tradebooks, is interesting enough to children to warrant systematic exposure; and that through exposure children will want to read and will try to read the literature. Given this view as a premise, the approach involves teaching reading with the materials of children's literature, tradebooks not specifically provided by a basal-reader program. This approach includes the use of other approaches; a basal reader, a language-experience approach, a skills program, etc. Basal readers may include selections from children's literature, where they can be adapted to the various vocabulary constraints of the program. Basal programs may include recommendations for the use of tradebooks, bibliographies to aid in the selection of tradebooks, and anthologies of stories published to accompany the basal program.

Technical and Informational Approach

Closely related to teaching reading with children's literature is the idea that we can teach reading with materials that provide technical information related to the interests and problems children face. Though the material of children's literature is usually thought of as being made up of fictional stories, a perusal of a library quickly dispels this myth. A great deal of technical information is available to children today. Magazines for hobbyists provide reading material on a wide variety of topics; model airplane building, drama, etc. Biographies are a mainstay of library collections, providing historical information. Encyclopedias cover an enormous scope of interest areas. Beyond libraries, advertising materials provide a great deal of technical information. Children interested in transportation can pick up colorful brochures at the nearest automobile or motorcycle dealer and learn about the various technical innovations incorporated into the vehicles being advertised. If the interest of the learner is treated as an important aspect of learning to read, the technical information approach must be considered a leading contender for time in reading instruction.

The Language-Experience Approach

Early versions of the language-experience approach involves using the child's own language to teach reading. The child either writes or dictates his or her ideas. Once in graphic form, there are many ways to use this experience to help children read. The experience chart has a long and varied history (Guy Montrose Whipple, 1920).

Roach Van Allen, a modern exponent of the language-experience approach encapsulates the idea behind this approach.

"To children who have experienced authorship many times, reading is not lessons, worksheets, practice exercises, or a time each day (perhaps to dread). It is the continuous discovery of stepping stones to a lifetime of enjoyment of books. It results in the conceptualizations: 'What I can think about, I can say. What I can say, I can write. What I can write, I can read. I can read what I can write and what other people have written for me to read '" (Allen and Allen, 1966, p. 21).

As previously noted, the language-experience approach is usually thought of in connection with beginning reading, specifically in the primary grades. It is clear today that there are some pupils in the middle grades, grades 4, 5, 6, and higher who are only beginning to learn to read. It is also clear that the application of the ideas of the language-experience approach, particularly as Stauffer (1969) and Lee and Allen (1963) conceptualize it, is not limited to beginning reading in early grades. Learning to write and learning to read go hand in hand well beyond the beginning points of curriculum. The language-experience approach encompasses any instructional instance wherein a learner functions as an author writing for himself or herself to read.

Phonics

Phonics is relating or associating phonemes or sequences of phonemes with graphemes or spelling patterns. Though it is difficult to relate phonics to comprehension because phonics does not directly involve meaning, phonics represents a major thrust in reading instruction in the United States. Phonics is noted in descriptions of reading instruction and in most teachers' manuals that accompany basal readers. There are also independent phonics programs published for use by teachers in reading instruction. Many are labeled supplementary and some are designed to accompany a specific basal-reading program. Phonics is included here because it is expected that some degree of focus on phonics instruction will be represented in the programs that are to be analyzed.

Word Recognition

Burmeister (1975) provides a recent account of a variety of approaches to word recognition. One thrust of word recognition might be called structural analytic. Here, a whole word is approached and then broken down into word parts; syllables, root words, affixes, letters, graphemes, or morphemes, etc. A second approach involves encountering parts of words and blending them together to make a whole word, a structural synthetic approach.

The task of word recognition is usually treated as seeing the word and then saying it. Some equate this task with knowing the word or getting the meaning of the word. An isolated word suggests a range of possible meanings, while a word used in the context of language becomes much more specific.

Teaching youngsters to recognize a few words that are commonly used is often referred to as development of an initial sight-word vocabulary. If the words are commonly used, then the common meanings of the words are likely to be part of the oral vocabulary of the learner.

Once an initial sight-word vocabulary is developed, youngsters are expected to be able to use contextual clues to determine new words. Contextual clues include information using the meaning and syntax of the surrounding language. Many programs include helpful illustrations that provide contextual information to help youngsters recognize words they have not previously been able to identify. Word-recognition instruction may range from the use of isolated words in lists to encountering words in context.

Total Individualization

Individual reading instruction holds a prominent place in the literature of reading instruction. Washburne (1918) structured the Winnetka plan on the basis of individual differences.

A number of waves of concern for individualization of reading instruction are apparent in the literature of reading instruction. N. B. Smith (1965) notes a peaking in the early 50's and 60's. The work of Jeanette Veatch (1959) represents a relatively modern viewpoint.

Individualization has had a variety of names. Olson (1962) uses "seeking, self-selection, and pacing" as terms.

N. B. Smith identifies "personalized reading" [p. 379] as a key term, and "self pacing" is a contemporary label in a number of writings. Whatever the label, the ideas that underlie the approach include treating learners as individuals, recognizing that people learn in different ways and at differing rates, and that all children are not necessarily interested in the same thing at the same time.

Partial Individualization

A continuum of instruction aids thinking about individualization. At one end of the continuum is the idea of total individualization of a reading program, and at the other end of the continuum is total group instruction. Somewhere within the continuum are the ideas of supplemental projects for individual study, personalized reading projects, self pacing, and programmed materials. Partial individualization provides for some individualization, but does not devote instruction exclusively to individualization.

Programmed Materials

Programmed materials and programmed learning are topics that occur frequently in the literature of reading instruction. Eisner and Vallance (1974a) clearly delineate a technological approach to curriculum planning. Many approaches to reading problems result in the accumulation of mechanical devices and specialized materials designed to assist in strategies of programmed learning or instruction in reading.

Programmed materials promise a valuable impact on reading education, and the category is included in the instrument in this work as an important aspect of reading instruction today.

Zintz (1975) summarizes the principles of programmed learning. A series of easily accomplished learning tasks is usually scheduled. The learner gets feedback at each point in the procedure. The results of efforts are immediately known by the learner. Pupils can progress independently. Errors are immediately corrected. In branching programs, unnecessary practice of drill is minimized or eliminated.

Structural Linguistic Approaches

A. Harris (1970) provides the conventional viewpoint on descriptive or structural linguistics. He cites Bloomfield's (1942) criticisms of popular phonics blending approaches and so-called word methods paralleling "... the study of Chinese ideographs" (A. Harris, 1970, p. 70). Harris summarizes the principles of the so-called 'linguistic method' as starting with letter identification by name, not sound. It proceeds to words with letters that have only one sound and no silent letters, and groups of words that vary minimally as in ".... Dan, can, fan" [p. 71]. Avoidance of direct teaching of phonics rules gives way to induced generalizations by youngsters. Finally, sentences like, "Nan can fan Dan" [p. 71], are introduced. K. Goodman (1964) calls for a reasonable perspective in dealing with a spurious label by noting that the linguist can properly generate both ideas and criticisms relating to reading instruction, but that linguistics is inadequate as the sole basis for reading instruction.

Approaches to Reading Problems

The identification of reading problems has a long and varied history. When a reader does not perform as well as observers desire, it is commonly said that a reading problem exists. The ways that are proposed for helping the reader perform as well as is desired are solutions and are approaches to reading problems.

In this document, we refer to the solutions to reading problems that are widely recommended and evident in the literature.

Differentiation of Instruction

Individual differences is a key term in the literature. Recommendations often stress differentiated instruction. Bond and Tinker (1973) list important dimensions of differentiated instruction. They note the similarity of youngsters in the growth patterns in areas other than reading performance, and the lack of uniformity in progress in many different areas. A variety of forms of differentiated instruction are recommended in the literature.

The key ideas in the differentiated instruction approach are that instruction should not be the same for all children and that instruction should reflect and capitalize on the individual learner's unique characteristics, particularly with respect to the different ways youngsters learn best. Though the same principle is recommended in much conventional instruction, it stands as a major area of recommendation for instruction for youngsters who do not do well in reading with conventional instruction.

Improvement of Self Concept

Improving self concept involves helping the child to gain, retain, or regain a good feeling about himself. Each child brings to school his thoughts, patterns of behavior, beliefs, and ways of using language. If these are treated as unimportant, wrong, worthless, or something to be eliminated; it is easy to understand how self esteem can suffer. Concerns include the way a learner feels about the culture he or she represents or the language he or she learns at home when it differs from the language that is predominant in the school.

By honoring what the child brings to school, in spite of the differences between the expectations of the teacher and what is encountered, or because the culture reflected by the child warrants preservation rather than annihilation, schools can enhance the child's self esteem rather than destroy it. Underlying this approach is the idea that a learner with low self esteem encounters difficulty in participating actively in learning to read, and that if self esteem is improved, the learner will participate more actively in learning to read. Ways of improving the child's self esteem are used to help the child learn to read better.

Social and Psychological Adjustment

The approach of social or psychological adjustment of the learner to existing conditions holds that a maladjusted child encounters difficulties in participating in reading instruction, while an adjusted child may not. Ways of helping children adjust may involve improving self esteem. They may include helping the child to reappraise himself or herself with respect to the characteristics of the school setting. This approach may involve actually lowering self esteem.

Reading expectancy estimates may be used to help the child set goals that are often said to be realistic rather than unrealistic. A. Harris (1970, p. 212) recommends a formula for reading expectancy that reflects chronological age and mental age as measured by conventional intelligence tests. The concepts of underachievement and overachievement are related to the expectations established by teachers, schools, and tests.

The social and psychological adjustment approach to reading problems is also concerned with emotional and personality maladjustment. Such maladjustment is believed by many to be "... both a cause and an effect of severe reading disability" (Helen M. Robinson, 1946, p. 87). On one hand, if the maladjustment is considered to be caused by reading disability, then reading instruction is the proposed solution. If, however, maladjustment is considered to be the cause of the reading disability, then procedures to effect adjustment are offered as the solution.

Maladjustment may be attributed to "... something constitutional or may come from unfortunate environmental conditions" (B. Bond and M. Tinker, 1973, p. 144). The home environment and parental factors are often viewed as the source of the difficulty. The beginnings of solutions to the difficulty of maladjustment as a cause of reading disability include referral to a social worker, a psychologist, or psychiatrist. Parent-teacher conferences may be recommended to increase the knowledge of the child by the teacher, in the hope that through understanding how the maladjustment came about, the teacher will be better equipped to decide how to help the child. The basic solution is to bring the child from a state of maladjustment to a state of adjustment in order to help the child learn to read.

Reorganization of the Program or Curriculum

Reorganizing is an approach to reading problems. Reorganization may focus on the curriculum; the content; sequence and relationships between areas of content and instruction.

Reorganization of Personnel of Classroom, School, or District

Some approaches center on administratively defined units of personnel. Many suggestions in the literature center about regrouping students within the classroom.

Miles Zintz (1975) describes options of scheduling, grouping, regrouping, individualized instruction, and reorganizing the school. Recommendations of team teaching, departmentalization, semi-departmentalized team teaching, and modular scheduling are examples. A highly successful teacher of reading may be rescheduled through some reorganization concept to provide a wider field of influence on youngsters with reading difficulties.

The school may be reorganized into teams with at least one skilled reading teacher on each team. The reading specialist concept may also be recommended at a school-district level. Here, a skilled person may function as a consultant, teacher, or clinician in a number of schools within a district, if not for the entire district. Reorganization, then, may apply to classrooms, schools, and districts.

Diagnostic Test Skills Prerequisite to Reading for Deficits

One diagnostic approach is based in correlational studies of reading and is classified here as the search for defective skills with printed language that are assumed to be prerequisites. These skills have some direct, logical relationship to reading, but are not the same as reading if reading is believed to be reconstructing the author's meaning. Learning to say the alphabet is an example of such a skill.

A number of the assumed prerequisites to reading center about phonics. Generalizations and specific phoneme-grapheme associations may be tested. Word attack skills that do not involve meaning fall in this category. Syllabication and identification of the accented syllable are included. These skills often are categorized as entry skills and may include some skills labeled readiness skills if they involve print.

The prerequisite reading skill tests are usually included as part of the informal reading inventory.

Diagnostic: Test Reading Skills for Deficits

Closely related to the prerequisite reading skill tests are tests that involve oral and silent reading with a comprehension check. This tactic usually includes graded paragraphs and results in setting a level of readiness materials with which the student can be successful. Traditionally, an instructional level, an independent level, and a frustration level are identified.

Diagnostic: Test Perceptual, Motor, and Neurological Characteristics for Deficits

Another area of diagnosis representing a major facet of testing involves skills of perception. postulated neurological functions, and motor coordination assuming deficits result in reading difficulty. These areas are often treated separately in psychology. For our purposes in this work, they are placed together. Some tests of reading readiness are part of this category. Tracing exercises, connecting dots to make a picture, and writing an 'X' or a check in a box to indicate a response to some perceptual task are examples. This category overlaps the area of prerequisite skills treated earlier in this document.

A number of tests that attempt to appraise intelligence without interference from deficient language skills include assessments of perception and motor coordination simultaneously. Visual and auditory skills are usually the focus. Goldberg and Schiffman (1972) and Bond and Tinker (1973) provide insightful reviews, explanations, and publication information on most of the tests, techniques, and conventional interpretations.

The concept underlying the use of perceptual and motor tests is clearly one of deficit. A youngster who does not perform well in subskill areas is identified as lacking the identified skills. The skills are treated as prerequisites to reading. The solution offered usually is to teach the youngster to perform better in the skill area in which he is deficient. With characteristics that are believed to be unteachable, the youngster is labeled as such and expectations of performance in reading are adjusted. A third alternative, to design instruction which avoids the area of weakness, is rarely suggested.

Closely related to the deficit concept applied to perception and motor skills is the neurological approach. Goldberg and Schiffman (1972) review the research in this area, identifying "alexia," without words, and "strephosymbolia" or "twisted symbol" as early terms p. 12 . A list of tests and paradigms and terms applied to performance assessment underlies the search for evidence of dyslexia.

Diagnosing dyslexia with less than extreme cases poses a difficult problem. The thrust draws from discourse in education, psychology, medicine, and psychiatry. Studies of neurological structure, biological chemistry, perception, motor coordination, and intelligence are often involved. The search for evidence of dyslexia is a search for brain abnormality, congenital defects of the brain or nerves, maladjustment, or learning disability.

Theories posit a syndrome, a variety of characteristics in varying combinations. Many of these characteristics exist in adequate readers, making diagnosis of moderate neurological problems difficult. Most youngsters facing reading difficulties show only moderate deficits in some but not all areas. Application of the terms, dyslexia or brain deficiency, to moderate problems may result in using the term to represent a set of circumstance that may not be related to reading, or it may become a synonym for poor reading.

Solutions to a dyslexic condition may include visual, auditory, or motor training in skill deficit areas. Administration of drugs prescribed by a physician is popular. Psychiatric treatment or sociological and psychological counseling are recommended for some.

Diagnostic: Assess Language for Deficit

Language plays an important part in conceptions of diagnosis. A prominent body of literature involves a language deficit theory. The roots of this idea include Whorf's formulation of the effect of language on thinking (B. L. Whorf, 1942). Deutsch (1965 and 1967) and others contribute to a position that suggests that a lack of language is a characteristic of disadvantaged children. Today, the position is controversial. Evidence showing that a lack of language exists in sociologically defined disadvantaged groups is not forthcoming, while differences between groups with respect to language are clearly documented.

Clinicians' expectations of language performance in reading tests reflect the language background of the clinicians as well as the expectations noted in test directions. The language deficit concept holds that a lack of language can cause reading difficulties. Solutions include attempts to teach assumed appropriate language, eliminate language that is not in accord with assumed appropriate forms, and replace assumed inappropriate forms with assumed appropriate forms.

Search for Technological Solutions to Problems

Technology provides another approach to reading problems, usually centering on instruction, the ways of teaching, rather than on curriculum, what is to be taught. For example, application of stimulus and response reinforcement theory to reading outlines how to teach those elements of a reading curriculum that are amenable to the theory. Other elements of reading curriculum are left out because the construct of stimulus and response with reinforcement can not be easily applied.

Some economic constructs fall into the technological approach. Quests to teach words at a penny a word rather than a dollar a word exist in some proposals. Units of money correspond to units of teacher time per curriculum element to be taught. Expense is a key factor, and more efficient teaching reduces expenses. More efficient teaching is believed to be a possible outcome of improved technology. Some models equate teacher experience with the quality of teaching. More experience makes a better teacher.

The concept of teacher-proof materials receives considerable attention in the literature. Often, machines are considered for use when the learner can individually operate the machine without assistance from a teacher. A number of reading laboratories in high school and adult education situations reflect this idea. Solutions involve acquisition of machines, the promise of increased eye span and reading rate, or reduced regressions.

Technology involves both hardware and software (R. Gagne, 1974). Usually, hardware dominates conceptions of technology, but clearly, the literature of the field is heavily weighted toward software concepts. Hardware is machinery and instruments, such as the tachisto-flasher, a device for exposing a bit of print for a specified amount of time. Software is technologically framed ideas, such as the S-R reinforcement concept of learning and instruction.

The technological approach to reading problems holds that better technology or more insightful application of present technology to reading instruction will improve the way people learn to read. Faith in the possibilities for improvement may be placed in hardware, software, or conceptual constructs arising out of various disciplines. Much is made of solving reading problems by purchasing an aid, a program, a machine, or a contract with a guarantee from a company promising to solve or reduce the problem. Much of the literature recommending technological approaches resides in the promotional documents of companies that sell materials that complement these approaches.

The Role of the Teacher

Sorting out the roles of teachers in relation to the models reviewed prompts a number of different approaches. Though no attempt to cope with the full range of literature on this topic is offered in this document, major categories are identified and some of the more prominent ways of looking at the array of possibilities are presented.

Teacherless Programs

Self-instruction programs fall in the category of teacherless programs. Materials labeled programs that provide no reference to the teacher or no provisions for instruction also fit the category of teacherless programs. Some programmed material, some computer instruction, and scheduling youngsters into a teacherless facility such as an unsupervised library can be treated as teacherless programs.

The Teacher as a Scripted Performer

Some programs may provide explicit and complete instructions for the teacher. A script may be included prescribing what to say. Directions may include what body movements to use and where to locate oneself in an instructional situation. Provisions of this type treat the teacher as a scripted performer.

The Teacher as a Technician

Programs which promise that following the instructions for presenting and manipulating the material without necessarily understanding why or how it works cast the teacher as a technician. Some decisions are required in this role, but the decisions are predominantly technical, involving procedures, mechanical operations, following instructions, identification of circumstances or learner characteristics. The identification process triggers through instructions procedural adjustments without necessarily requiring either explanation or understanding of why or how a procedural adjustment fits the identified circumstance.

The Teacher as a Source of Wisdom

In some programs, the teacher may be cast as a source of wisdom. This is a traditional teaching role. The teacher serves as a fund of knowledge, or the giver of information. Lecturing in curricular format of academic rationalism is a common example of this category. "Tell" is a word often used in manuals. The teacher may provide ideas about how to proceed as well as ideas of substantive content in this role.

The Teacher as a Guide and Monitor

Some programs may describe the role of the teacher as a guide and monitor. This role involves arranging learning situations, providing insights about how to learn, and structuring problem formats for students. The term, 'facilitator' fits this concept of a teaching role.

The Teacher as a Clinical Information Processor

The teacher may be cast in the role of an information processor who clinically examines the information coming through his or her system. The clinical information processor functions as an initiator of input and a reactor to output. Models of information processing resembling computer programs may underlie this role. The teacher may be represented as part of a larger system of information processing which includes students, curricular constituents, instructional modules, and similar constructs as elements.

The Teacher as a Judge and Policeman

In some instances, the teacher's role may be described as that of a judge and policeman. Here, the teacher may function as a judge or policeman, predominantly concerned with controlling classroom behavior, seeking errors to be corrected, or implementing management systems with prescribed activities, rules for classroom behavior, and provisions for deviant behavior of students.

Application

It is recognized that the teacher's own view of his or her role may actually transcend whatever role is suggested by the published program. This work focusses on the role that can be gleaned from the published material. It is not expected that all reading programs can be fully represented by this list of teaching roles. Neither do we expect mutual exclusivity between categories. The thrust of this work is to identify the focus and emphasis of most published reading programs, and to determine something of the range of variability present in reading programs.

Curriculum Thrusts

In some sense, curriculum issues center on what to teach, and how to organize what will be taught. Eisner and Vallance (1974a) describe five conceptions of curriculum. One conception views curriculum as the development of cognitive processes. Technology is the center of a second conceptualization. Self-actualization processes or consummatory experiences are the focus of a third major area of curriculum theory. One popular view of curriculum is social reconstruction. Academic rationalism represents a fifth and very prominent view of curriculum. Each position is represented by essays by informed proponents of the position in the work of Eisner and Vallance (1974a). Each of the five positions is distilled into a statement of a principle for planning curriculum. These five principles form a bold dimension in any paradigmatic approach to reading comprehension instruction.

Eisner and Vallance (1974b) accurately indicate the inexhaustivity of their categorization of five basic conceptions. They note that the child-society distinction, with its roots in the child-centered views of Rousseau and others, and the society-centered views of Jefferson and others are not brought into sharp focus by the five conceptions they present. Other ideas not fully treated are the skills-to-values continuum, a present-to-future dimension, and some learning model conceptions. Some of these ideas are treated to a degree in one or more of the five positions, but they are not central themes. Incompleteness is not a deterrent to opening the field of reading instruction to fuller examination. Application of the five conceptions of curriculum helps to identify and clarify distinguishing features of reading programs. It is enough to produce this demonstration and to invite others more deeply involved in curricular theory to tighten the conceptual framework.

Cognitive Skills

Curricular planning designed to develop cognitive skills or processes focusses on teaching intellectual skills that can be used in many situations. It also focusses on teaching children how to learn. Some proponents conceive of intellectual skills with universal applicability. It is assumed that a skill that is learned with a specific content is usable with other content. Transfer may be assumed to be automatic. Children are assumed to possess intellectual capabilities which can be developed, strengthened, or sharpened.

Reading is sometimes treated as a universal skill. A program may assume that teaching children to read with fiction permits them to read in disciplines. Focus is on what will be done with learned skills in situations that follow the experiences provided by the curriculum. Education may be viewed as preparation for life rather than an important part of life.

Technology

This approach seeks efficient ways of teaching through packaging and presentation of material to the learner. Industrial models of accountability, systematic analysis, and production control are used to organize and present ideas to learners that are assumed to be predictable and, in some instances, stable. Technological curriculum planning focusses on the ends of an industrial model of society, and the concept of teacher-proof materials is often raised. Education is viewed as a relatively stable system that tends to remain intact and follow previously described patterns. Innovations in packaging are conceived outside of and preceding the actual learning situation, thereby prescribing what will happen when the learner encounters the package.

Technologically conceived reading programs often attempt to systematize individualization within the bounds of assumptions made about learners and classroom settings. Like the cognitive skills approach, focus is often on teaching some assumed universally applicable method of learning, but technology also may focus on subject matter assumed to be important enough to warrant the enormous effort required to integrate a learning package. As in the cognitive skills approach, time in school is viewed as a period of preparation for what is to come.

Self Actualization

The self-actualization approach differs from the other approaches in that the experiences of the learner in school are assumed to be a critically important part of life rather than preparation for life. Rather than learning values, which is sometimes viewed as indoctrination, the learner is assumed to be developing his own values.

The development of values by the learner may be viewed as something close to a universally applicable skill as in the cognitive skills approach. Personal growth, integrity, and autonomy are developed in the learner through a dynamic process of formulating personal goals. Individualized reading programs may reflect this approach when students are faced with opportunities to learn to read using materials and content that they select or create. Focus is on experiences in the present. The learner is encouraged to discover ideas through is own efforts.

Social Reconstruction

Eisner and Vallance (1974b) develop the theme of social reconstruction along with a theme of social adaptiveness or relevance. In social reconstruction, adults' assessments of society are used to determine how society should be when youngsters mature. Curriculum is designed to prepare children to change society to the way adults believe or wish society should be. The individual learner's needs and interests are subjugated to what adults in power see as society's needs and interests. Like the cognitive skills approach and the technological approach, education is preparation for life rather than an important part of it. Reading programs planned with this approach stress social reform, and use the program as a tool to bring about changes that reflect current issues.

The social relevance or social adaptiveness approach seeks to help children prepare to adapt to the way society will be when youngsters mature according to the adults who plan and implement the curriculum. The world is viewed as changing and unstable. Youngsters are taught to survive. Like the social reconstructionists, this approach subjugates the individual to society's assumed needs and interests, and education is not consummatory as in the self-actualization position. Eisner and Vallance (1974b) treat this position along with the social reconstructionist approach because both stress the importance of society over the importance of the individual.

Academic Rationalism

This view focusses on teaching what is conceived as the best that man's intelligence has produced. The classic disciplines, literature, and ideas are central while practical pursuits such as driving, cooking, and vocational education are treated as extra-curricular functions, not worthy of full inclusion. Academic rationalists continually seek to determine what is best in order to include it in their plans. The traditional disciplines are periodically rethought. A distinction between the organization of ideas in a discipline and an organization of ideas within a curricular plan is a center of concern in much of the discourse advocating this approach.

Reading programs that embrace content as a means of teaching reading fit this category. There are also programs geared to preparing youngsters to deal with content. Academic rationalism is similar to the cognitive skills, technological, and society-centered approaches in that schooling is viewed as preparation for life, while it differs from self actualization which treats school as an integral and important end in itself.

Conclusion

The five approaches identified by Eisner and Vallance (1974a) provide a map, however incomplete. to thinking in curriculum. Other organizational schemes are recognized as important. King and Brownell (1966) emphasize knowledge and practical problems as they raise categories of occupation, politics, society, intellectualism, religion, and others as major elements of curricular thought. Lewis and Miel (1972) use subject matter, intended learning, opportunities, engagements, and experiences as categories of curricular concepts. We do not reject these and other categorization systems. Eisner and Vallance (1974a) provide us with one system among many which we focus on because of its broad scope and usable distinctions.

CHAPTER 12

Comparing Programs and the Search for Structure

The data displayed in Appendix C lends itself to several forms of analysis. Several theoretical data reduction procedures are applied and the program observations are tested to discern to what extent the programs differ. A search for structure is carried out using theoretical and mathematical reduction techniques. Speculative conclusions are drawn about the reasons for the findings.

Prior chapters and analyses treat the information in Appendix C as nominal data, exactly as the study was originally designed. Analyses in this chapter proceed from an assumption that a mean is a reasonable summary of an array of numbers. Based upon this assumption, several forms of analysis are performed using means as bases. The conditions for gathering the data and conducting the observations are described in earlier chapters and in Appendix A.

Theoretical Categories and Subcategories

This analysis focusses on the subcategories within the major theoretical areas. Appendix A shows Reading, Language, Learning, and Teaching as four major theoretical areas. Within Reading, five subcategories are shown as Program Focus, Comprehension Tasks, Levels of Comprehension, Purpose for Reading, and Inquiry into Print. Within Language, three subcategories are described as Unit of Emphasis, View of Language, and Meaning. Learning includes View of Learning and View of the Learner; two subcategories. Within Teaching, four subcategories include Pedagogical Approaches, Approaches to Reading Problems, Teaching Role, and Curriculum Thrusts. Totally, fourteen subcategories are represented.

Within each program, a response reflecting the deliberations of the observer groups is recorded for materials for the teacher and the student in areas of instruction and evaluation. This is done for each of the 89 described characteristics. In this analysis, the mean is calculated for each characteristic across the categories of materials for student and teacher for instruction and evaluation. These means are used to calculate a mean for each of the fourteen subcategories described above. Table 1 in Appendix F shows these means for each of the seven programs.

The null hypotheses are that there are no significant differences at the $P < 0.05$ level between means per program of program observation ratings averaged over all subcategories, averaged over major theoretical categories, and averaged for individual subcategories. An analysis of variance procedure is used to test this. Table 2 in Appendix F exhibits the results. The low F ratios are all considerably less than statistically significant at the $P < 0.05$ level. The null hypotheses that no significant differences persist between means of responses within subcategories per program can not be rejected. It appears that the programs are not significantly different from one another according to the analysis described here. This finding supports the conclusions rendered in the descriptions of the programs as they were approached using the observation ratings as nominal data.

Audience and Purpose for Materials

This analysis focusses on the categories that reflect the audiences to whom the materials are directed and the purpose for the materials. The audiences identified are teachers and students. The purposes identified are instruction and evaluation. The instrument categorizes materials for teachers (T) and materials for students (S). The audience categories are crossed with materials for instruction (I) and materials for evaluation (E). The following data reduction technique uses these categories.

Seven combinatorial variables (TI, TE, SI, SE, T, S, and P) are created through transformations that yield means. All of the observed responses in all major theoretical categories, reading, language, learning, and teaching, in all theoretical subcategories (A, B, C, etc.), and in all individual program characteristic categories (1, 2, 3, etc.) are combined for observational ratings under the categories of instructional responses for teachers (TI) and students (SI), and evaluation materials for teachers (TE) and students (SE). Responses to instructional (TI) and evaluation (TE) materials for teachers are combined summarizing responses to materials for teachers (T). Responses to instructional (SI) and evaluation (SE) materials for students are combined summarizing materials for students (S). Summaries of responses for materials for teachers (T) and students (S) are combined summarizing responses for programs (P). This data reduction approach yields seven combinatorial variables that numerically summarize responses to programs (P), materials for teachers (T), materials for students (S), instructional materials for teachers (TI) evaluation materials for teachers (TE), instructional materials for students (SI), and evaluation materials for students (SE). See Table 3 in Appendix F.

The seven combinatorial variables described above (P, T, S, TI, TE, SI, and SE) are subjected to one-way analyses of variances across programs. Each of the original variables occurs in 89 instances in each of 7 programs yielding a total of 623 responses. In each analysis, degrees of freedom between groups is 6, within groups is 616, totalling 622. Table 3 in Appendix F exhibits the results.

The null hypotheses are that no significant differences at the $P < 0.05$ level or better with 6/616 degrees of freedom persist between means per program of each of the seven combinatorial variables (P, T, S, TI, TE, SI, SE) reflecting audience and purpose for materials. None of the F ratios shown in Table 3 in Appendix F are significant at the $P < 0.05$ level or better. The highest F ratio is for variable TE, materials written for teachers in relation to evaluation procedures. This F ratio is 1.49 which is significant at the $P < 0.176$ level, far less significant than the $P < 0.05$ level. The null hypotheses can not be rejected on the basis of these data. The programs are not significantly different with respect to audience or purpose as indicated by observational ratings reflected in combinatorial variables P, T, S, TI, TE, SI, or SE.

Missions, Language and Learning, and Purpose for Reading

A third analysis uses three theoretical dimensions as a basis for data reduction. One theoretical dimension involves the missions of reading instruction described in Chapter 8. A second theoretical dimension reflects the basic metaphors underlying the categories of learning and language described in Chapters 9 and 10. A third theoretical dimension is based on the locus of control of the purpose for reading in instructional situations described in Chapter 8.

The three missions of reading instruction include helping students to produce a spoken or thought analogue (SA) of the author's printed language. The second mission described focusses on helping students to reconstruct the author's message (RM). Helping students to construct knowledge (CK) about the author's message is the third mission. These three missions are used conceptually to categorize a portion of the 89 characteristics of reading programs listed in Appendix A.

Three basic metaphors are represented in the views of language and learning. The nativistic view of language as an innate entity, and the mentalistic views of learning (NM) have a touchstone in idealism. The views of language as observable speech or writing are related to the behavioristic views of learning (SWB). The views of language as a meaning based process are in accord, to some degree with the ideas of learning described as the cognitive field views (MCF). These three basic metaphors are used conceptually to categorize a portion of the 89 characteristics of reading programs listed in Appendix A.

The locus of control of purpose for reading includes three assumed sources of purpose. One source is described as the text (TX). A second source is identified as the teacher (TR). A third source of purpose is assumed to be the reader (RDR). These three sources of purpose for reading are used to categorize a portion of the 89 characteristics of reading programs listed in Appendix A.

The categorization of characteristics of reading programs involves identifying the characteristics as being related to one or more of the nine categories noted above. Some of the characteristics are not discernable as fitting only one of the categories, and are, therefore, included in more than one. The responses to programs by observers that fall within the domain of one of the nine categories are averaged yielding nine summary mean responses per program, a total of 63 means. Table 4 in Appendix F displays the nominal numbers from Appendix A of the characteristics in the nine categories. Table 5 in Appendix F shows the means of the combined characteristics shown in Table 4 in Appendix F.

Variable Comparison

A comparison of the variables (SA, RM, CK, NM, SWB, MCF, TX, TR, and RDR) themselves is in order. The means of variables across programs are subjected to one-way analysis of variances. The null hypotheses state that no significant differences at the $P < 0.05$ level will persist among the means of variables SA, RM, CK, NM, SWB, MCF, TX, TR, and RDR. See Table 4 in Appendix F for groupings and Table 5B in Appendix F for the anova information. This analysis yields an F ratio of 5.172 with 8 and 54 degrees of freedom. The null hypothesis that no significant differences between the means of variables SA, RM, CK, NM, SWB, MCF, TX, TR, and RDR is rejected. An a posteriori ranges test (Tukey) is performed to determine which variables are alike and which differ. Table 5C in Appendix F shows the results. This analysis suggests that various combinations of variables SA, RM, CK, NM, SWB, MCF, TX, TR, and RDR warrant testing to determine structure and the possibility of distinguishing programs.

Program Comparison Using Variables

Variables SA, RM, CK, NM, SWB, MCF, TX, TR, and RDR are compared across programs. The research question focusses on whether or not the programs differ with respect to these variables. The null hypotheses state that there are no significant differences at the $P < 0.05$ level among means per program of variables SA, RM, CK, NM, SWB, MCF, TX, TR, and RDR. A one-way analysis of variance procedure yields an F ratio of 0.646 with 6 and 56 degrees of freedom. The null hypotheses can not be rejected. The programs can not be shown to differ significantly at the $P < 0.05$ level according to this analysis with these variables.

Program Comparison Using Theoretically Defined Groups of Variables

Variables SA, RM, CK reflect concerns about the missions of education and constitute a theoretically defined group of variables. Variables NM, SWB, and MCF reflect concerns about the theoretical views of learning and language that underlie the programs, and constitute a second theoretically defined group of variables. Variables TX, TR, and RDR reflect concerns about the locus of control of the purpose for reading and constitute a third theoretically defined group. The research question focusses on whether or not the means per program of the three groups of variables differ. The null hypotheses state that no significant differences persist at the $P < 0.05$ level among means per program of variables grouped under missions of reading instruction (SA, RM, CK), language and learning (NM, SWB, and MCF) and locus of control of purpose for reading (TX, TR, and RDR). Analysis of variance procedures yield the F ratios shown in Table 6 in Appendix F. The null hypotheses can not be rejected, suggesting that under the conditions of these analyses with these variables, programs are not significantly different from one another at the $P < 0.05$ level.

Relationships Among Variables

The comparison of variables and the results shown in Tables 5B and 5C in Appendix F suggests that a search for structure is warranted. To describe the relationships among the variables somewhat more clearly, a principal components factor analysis with iterations and a varimax rotation is applied to the nine variables. Table 7 in Appendix F provides the information required for replication. Included in Table 7 are the intercorrelations among variables SA, RM, CK, NM, SWB, MCF, TX, TR, and RDR. The communalities, rotated factor matrix, eigenvalues, percents of variance, and cumulative percents of variance are also included. The varimax rotation matrix yields four factors. The factors are named using the highest loading as the key descriptor. Factor 1 is named Anti-Epistemological suggesting an inverse relationship to constructing knowledge as a mission of reading instruction. Factor II is named Anti-Spoken Analogue indicating a focus away from helping students say the author's words aloud or to themselves. Factor III is named Reader Initiated identifying the reader as the assumed source of the purpose for reading. Factor IV is named the Message Reconstruction Approach indicating that reconstruction of the author's message is the main focus. Each factor is more complex than the names imply. The factors and their underlying elements are described below in relation to the loading in the matrix in Table 7 of Appendix F.

Anti-Epistemological Approach

Factor 1 exhibits a high positive loading (0.845) on variable SWB, which indicates a view of language as observable speech and writing, and focusses on behavioristic associative learning theories. A moderately high positive loading (0.676) is shown on variable TX which indicates the locus of control of the purpose for reading is viewed as emanating from the text. Factor 1 exhibits a bipolar characteristic with the high negative loading (-0.882) shown on variable CK indicating an avoidance of focus on the construction of knowledge as a mission of reading instruction. All other loadings are lower than 0.40. Factor 1 represents a text based, behavioristic, anti-knowledge focus on reading instruction. The most powerful description of Factor 1 is the high negative loading on the instructional mission to construct knowledge of the author's message, suggesting the name 'anti-epistemological.'

Anti-Spoken Analogue Approach

Factor II exhibits moderately high positive loadings on variables NM (0.637) and TR (0.605). Variable NM represents the nativistic views of language and the mentalistic views of learning. Variable TR represents the teacher as a locus of control of the purpose for reading. A lower positive loading (0.430) is shown on variable CK, the instructional mission of constructing knowledge. A bipolar characteristic is indicated by a high negative loading (-0.861) on variable SA, the instructional mission to help students construct a spoken analogue of the author's printed language. Factor II is an anti-spoken analogue, linguistically nativistic, mentalistic, teacher initiated, moderately epistemologically focussed approach. The most powerful root of Factor II is the high negative loading on the spoken analogue suggesting the name 'anti-spoken analogue.'

Reader Initiated Approach

Factor III exhibits a high positive loading (0.871) on variable RDR which indicates that the reader is viewed as the initiator of the purpose for reading. A second high positive loading (0.788) is shown on variable MCF indicating a view of language as a rules oriented, meaning-based process and a view of learning as cognitive process involving goals and insights as desired outcomes. Factor III exhibits a moderately bipolar characteristic in that a moderate negative loading (-0.489) is shown on variable TX, which represents the text as the source of purpose for reading. Factor III represents a reader initiated, cognitive, meaning based process oriented, anti-text initiated approach. The most powerful descriptor of Factor III is the high positive loading on variable RDR indicating the reader initiated purpose for reading suggesting the name 'reader initiated.'

Message Reconstruction

Factor IV exhibits a high positive loading (0.808) variable RM indicating the instructional mission to reconstruct the meaning of the author's message. A moderately positive loading (0.450) is shown on variable MCF, the meaning-based view of language coupled with the cognitive-field views of learning. A bipolar characteristic of Factor IV is suggested by a moderately negative loading (-0.579) variable TR indicating an avoidance of reading purpose initiated by the teacher. Factor IV represents a meaning based, process oriented, cognitive-field, anti-teacher initiated purpose approach that focusses on reconstructing the author's message. The highest loading on variable RM, the instructional mission to reconstruct the author's message, suggests the name 'message reconstruction approach.'

Using Factors to Compare Programs

The identification of four factors, anti-epistemological approach, anti-spoken analogue approach, reader initiated approach, and message reconstruction approach, permits another comparison of programs. The research question to be treated asks if the programs differ significantly from one another with respect to the characteristics identified as underlying each of the four factors. To answer this question, ratings of characteristics of variables with loadings over 0.40 are averaged yielding means per program per factor. One-way analysis of variance procedures are performed to determine if the resulting means per program differ significantly at the $P < 0.05$ level or better. Table 8 in Appendix F displays the results. The null hypotheses state that no significant differences persist at the $p < 0.05$ level among means per program of underlying high loading variables grouped per factor. None of the F ratios are significant at the $P < 0.05$ level or better. The highest F ratio is 1.13 with 6 and 14 degrees of freedom, considerably below the F ratio of 2.85 required for $P < 0.05$. The null hypotheses can not be rejected. Under the conditions of this study, the programs do not appear to be significantly different with respect to the four factors described.

Discussion

Two major thrusts are apparent in the analyses described. One thrust seeks to determine if the programs differ from one another. A second thrust seeks to describe the structure of relationships among the variables. The first approach is treated here under Program Comparisons. The second approach is discussed here under 'The Search for Structure.'

Program Comparisons

None of the analyses described in this chapter suggest that the programs differ significantly fron one another. To the extent that these data and the analyses are reliable, credible interpretations of the relationship of the seven selected programs to the theoretical bases of reading instruction, the following conclusion is repeatedly supported. The programs are remarkably alike. This finding is in accord with the program descriptions in Part I of this study. In Part I, the descriptions use the ratings of programs as nominal data. The fact that the programs are very similar prompts a key question that can be answered only in a speculative manner. Why are the programs so much alike? Why, with the extensive resources available to major publishing companies, should seven widely used programs appear to be so similar?

The speculation is prompted that the publishers are seeking to sell their products to the same market. If publishers are using similar techniques to sense the tenor of the same market, and producing what seems to be what the market will buy, then it is understandable that the products they produce will be similar. Who buys basal readers? Although purchasing agents in school districts usually sign the sales contracts, it is teachers who influence administrators who constitute the market. What are the characteristics of the teachers who are the market for basal readers? In elementary schools, teachers usually are prepared for teaching reading by taking one course in methods and materials of language arts and reading, one course in children's literature, and practice teaching which may or may not involve reading instruction. This preparation is minimal, providing elementary school teachers with only the barest essentials for understanding the complexities of the theoretical structure underlying reading comprehension instruction.

If the speculation that basal readers are based on marketing principles is correct, then a related speculation about the relationship of basal readers to educational principles may be of concern. First, there is little reason to assume that marketing principles and educational principles are in perfect accord. If they are not in accord, then basal readers may be based on marketing principles rather than on educational principles. It is possible, that to the extent that basal readers sell well, they are based on marketing principles; and to the extent that they sell poorly, they are based on educational principles.

However, the situation is considerably more complex. It is well known that we as teachers tend to teach the way we were taught. We carry on traditions. It is also well known that research and theory have had little impact on practices in schools (Clifford, 1973). It can be speculated that tradition probably plays a major part in shaping our expressed concerns as teachers, which in turn shapes the characteristics of the market as publishers might construct it. If these speculations are correct, basal readers may be based on marketing principles first, with tradition running second, and educational principles lagging in a third place. The evidence presented in this study does not confirm these speculations, rather it prompts them because it does not disconfirm them. The speculations provide warrant for further examination of the structure of the theoretical bases of basal readers.

The Search for Structure

Chall (1967, p. 189) states, "... for all practical purposes American reading instruction is basal-series instruction." If this statement is still correct, then the structure of basal-series instruction warrants description. Without such a description, little hope exists for extracting the control of practice from the effects of unexamined tradition, the legitimate needs of publishers to market their wares, and sheer chance. To describe the structure is a complex task. The present study provides a rare opportunity for making a modest inroad on the problem area. The sample is seven widely used published reading programs. They appear to be very similar to one another according to a variety of analyses based upon descriptions by trained observers of how the programs relate to theory. Many of the questions previously answered in this study focus on how the programs compare. A key concern approached here is what is the underlying structure of the program viewed together as a sample of reading instruction programs. Part of that question can be answered by describing the structure of the theoretical variables used to describe the programs.

The factors extracted and described provide some insights into the theoretical structure underlying the basal readers in the sample. If each of these factors actually represents a major thrust of reading comprehension instruction, then some speculations about the structure can be made. One can test, if only to a limited degree, the prior speculation that reading instruction may be based primarily on marketing principles, secondly on tradition, and thirdly, on educational principles. Such a test can be carried out by examining the underlying elements of each factor. Two questions can be brought to bear on the underlying elements of each of the factors. Question 1 is "How well do the elements fit together?" Question 2 is "How defensible educationally is the combination of elements?"

Factor 1, the Anti-Epistemological Approach is difficult to defend educationally. First, it treats language as observable speech and writing. Treating language as observable speech and writing functions in accord with the view that the text controls the purpose of reading, a second element of Factor 1. Also in accord with these elements is the avoidance of activities that lead to the reader constructing knowledge about the author's message. Question 1, "How well do the elements of Factor 1 fit together?" is answered. The elements of Factor 1 are in accord with one another.

How does Factor 1 fare with Question 2; "How defensible educationally is the combination of elements?" Factor 1 is controversial. Many reading experts believe strongly that reading programs should be framed in terms of behavioral objectives, and therefore, focus only on performance that can be observed. Many believe that the text does in fact control the purpose for reading, and many deny that conclusions about the truth or falsity, goodness or badness, and application of the author's message occurs in the domain of thinking rather than reading. Other researchers and reading experts believe that treating language as observable speech and writing is a reductionistic fallacy, reducing a process known to go on inside the head to those bits of observable performance displayed outside the organism. This group might cast Factor 1 as a denial of the fact that we can know things without revealing them, and cite strong introspective evidence in support. This second group represents a belief that the reader's purposes change dynamically as the reading takes place, suggesting that the text can not control the purpose of reading. In addition, this group could support to some degree the notion that constructing knowledge of the veridity and value of the message is, in fact, critical reading, an educational objective that should be part of any reading comprehension program. We have touched the high points of the controversy that the combination of elements in Factor 1 raises. The last point, the fact that Factor 1 represents an avoidance of activities designed to promote what is often called critical reading renders it educationally difficult to defend in the opinion of the authors.

How well do the elements of Factor II fit together? Factor II, the Anti-Spoken Analogue Approach exhibits an avoidance of activities that lead to helping students produce a spoken analogue of the author's printed language. This is coupled with the view that language is innate and that learning is best described by mentalistic views. The construction of knowledge is entertained as an objective, and the purpose of reading is assumed to be controlled by the teacher. Our answer to Question 1, "How well do the elements fit together?" is answered affirmatively for Factor II. These elements are in accord, and represent a strong tradition in schools except for the avoidance of producing a spoken analogue.

Question 2 asks, "To what degree is the combination of elements educationally defensible?" First, mentalistic views of learning, particularly faculty psychology, have had little educational credence in theoretical circles for over half a century. The theories that language is innate, the nativistic views as they are sometimes called, are controversial. The behaviorists and empiricists focus on the environment while the cognitivists and the idealists focus on a priori constructs. Wardhaugh (1971) points out that linguistics has tended not to focus on meaning, suggesting that support for the innate theories may yet be forthcoming. Wardhaugh (1971) also suggests that language acquisition theories probably have little bearing on reading acquisition. However, if we treat the concept of a priori language in terms of the point in time when youngsters enter school, rather than at the point in time when they are born, it is clear that language is acquired prior to reading instruction as it occurs in schools. In this sense, the innate theories are clearly educationally defensible, although we have stirred the controversy as it exists in linguistics.

Factor II treats the teacher as the source of the purpose of reading. This is true in some instances, but is is difficult to deny that the decision to read and to comprehend is a personal one, a decision that is always made by the reader. To what degree can one person, a teacher, influence or persuade another person to think about what an author's message means? The avoidance of activities that lead to a spoken analogue is antithetical to the traditional focus of reading instruction. However, silent reading is an educationally defensible objective, and oral reading is of questionable use except to help teachers get insights into how youngsters are processing print. Our answer to Question 2 is not clear-cut. Is Factor II educationally defensible? Weakly, we answer, "yes," but we have trouble accepting mentalism and its truck with developing the faculties of the mind. Weakly, we answer, "no," but we must concede that the youngster comes to school with language, and that the teacher can be the source of the purpose for reading in instances where he or she is persuasive or motivating. We must also concede that the construction of knowledge is a defensible educational objective and that producing a spoken analogue of the printed language is only an assumed way station on the way to proficient silent reading. Our answer is more, "yes," than ,"no," to the question of the educational defensibility of Factor II.

Factor III, the Reader Initiated Approach, assumes that the reader is the source of the purpose for reading, that language is a rules oriented, meaning based process, that the cognitive views of learning apply, and avoids activities that assume the text is the major source of purposes for reading. These elements fit well together and the answer to Question 1 is affirmative. Question 2 asks, "To what degree is the combination of elements underlying the factor educationally defensible?" All of the elements of Factor III appear educationally defensible; therefore, Question 2 might be answered affirmatively with one possible caveat. No mission of reading instruction appears dominant. Is it defensible to give each of the three missions an equal lack of emphasis?

This suggests eclecticism, a possible result of marketing principles. If one seeks to increase the number of people willing to buy a product, one might put something in the product for everyone. Although the equal lack of emphasis on the missions of reading instruction may suggest marketism, an equal inclusion could suggest balance. We might be more comfortable with Factor III if all three missions were emphasized rather than not emphasized, or, with respect to comprehension, if reconstructing the author's message (RM) were strong, constructing knowledge (CK) followed as less strong but still loaded moderately high, and the mission to produce a spoken analogue (SA) loaded less strong or perhaps weak. Ignoring the missions renders Factor III educationally indefensible to some degree.

Factor IV, the Message Reconstruction Approach, assumes language to be a rules oriented process, learning to be described best by the cognitivists' views. Factor IV avoids the assumption that the teacher sets the concern for helping students to reconstruct the author's message. The elements of Factor IV are in accord with one another answering Question 1 affirmatively. Educationally, with respect to reading comprehension, reconstructing the author's message is clearly the most defensible mission. Educationally, the process views of language and the cognitivistic views of learning are the most defensible. Although Factor IV does not emphasize the reader or the text as the source of the purpose for reading, it does definitely rule out the teacher as the source. Educationally, Factor IV is defensible. It would be stronger if the reader were emphasized as the source of the purpose for reading, but the low loading does not rule it out. Question 2, "How defensible educationally is the combination of elements?" is answered. Factor IV represents an educationally defensible approach, one that falls a little short of an ideal program for comprehension in that the reader is not emphasized as the source of the purpose for reading.

Conclusion

The seven programs analyzed are very similar to one another. Taken together, the theoretical structure underlying the programs yields four distinct factors. As might be expected, the elements underlying each of the factors are in accord with one another to a reasonable degree. Factor 1, the Anti-Epistemological Approach, and Factor II, the Anti-Spoken Analogue Approach, are very difficult to defend educationally. Factor III, the Reader Initiated Approach is defensible educationally except that it treats the missions of instruction eclectically. Factor IV, the Message Reconstruction Approach, is educationally defensible except that the purpose for reading is not clearly established. In some sense, no factor described here perfectly fits an educationally defensible approach to teaching reading comprehension.

The ideal structure is difficult to speculate upon, but it probably should be something like the following. The mission of reading comprehension instruction should focus predominantly on reconstructing the author's message, and to some degree on constructing knowledge about the author's message. Clearly, recent work in psychology and linguistics requires a focus on language as a rules oriented process and learning as described by cognitive psychology. The purpose for reading should be assumed to be initiated by the reader with some emphasis on the teacher as a guide and monitor of the process. Reading comprehension is an internal, unobservable process that occurs only when the individual who is reading has decided to do it. Reading comprehension instruction must take this fact into consideration. At present, the structure of reading comprehension instruction as described in this study may be the result of marketing principles and tradition rather than educational principles. To move toward educational principles as the basis for reading comprehension instruction, the paradigms in Factor III, the Reader Initiated Approach, and Factor IV, the Message Reconstruction Approach, require some adjustment. Perhaps surprisingly, these two factor - based paradigms come very close to an educationally defensible approach to reading comprehension instruction.

APPENDIX A

Observation Procedures and Program Profile Instrument

Observation Procedures

Each basal reader was reviewed several times by selected, trained observers. Of the seven observers selected, six were certified teachers with three or more years of successful teaching experience. The exception was one psychology of education graduate student. Each of the observers had completed substantial graduate work in reading. Five of the observers had taught reading in the middle grades for three or more years, and had completed or were near completion of a masters degree and satisfaction of the requirements for certification as reading specialists in the state of Illinois under the approved program of the University of Chicago.

Each of the observers received a minimum of three months of intensive training with the Program Profile Instrument. Five of the observers had worked with the instrument for over one year. All of the observers exhibited strong backgrounds in two or more areas of educational theory. Background areas included reading, linguistics, teacher education, measurement and evaluation, philosophy of education, aesthetics, sociology, elementary education, and educational psychology.

The first phase of the observation process involved dividing the observers into three teams of two, two, and three members. Each team included one or more experienced teachers, and one teacher who had used the basal reader program to be evaluated except in one instance. That exception involved the Reading Metro Series Program, which was new and had never been used in the form available in this study.

The observation began with each of the three teams assigned to one basal reader program, accounting for three of the seven programs reviewed. Each observer reviewed the assigned program independently and recorded his or her responses on the Program Profile Instrument. See Appendix A. Each observer recorded 89 responses in each of 4 categories, totally 356 responses per observer per program. See Appendix C. Independent observations were compared and percentages of agreement were calculated. The observers met a minimum of 12 hours as a team, discussed discrepancies in their responses, and recorded a team response. In instances where total agreement could not be established, discrepancies were noted.

In the second phase, the same teams were assigned different basal reader programs of the initial three programs reviewed. Phase 1 was replicated. The unresolved discrepancies were noted on the team responses to the Program Profile Instrument.

In the third phase of the observation process, all seven observers met together to review the work of the teams. Each team reported its findings and explained the resolved and unresolved discrepancies. One goal of these meetings was to resolve as many discrepancies as possible by re-reviewing the materials. All discrepancies were resolved.

The teams were restructured to review three more of the seven programs. The second group of three basal readers was reviewed using the same observation process used with the first set of three programs. All discrepancies were resolved in the final phase. Two additional teams were structured to review the remaining program of the seven. The process was replicated again and all discrepancies were resolved.

Among the initial independent observations, the lowest percentage of agreement of responses on the Program Profile Instrument was 89%, and most programs elicited over 95% agreement. Among the two team responses compared for each basal reader program, the lowest agreement was 94%. No discrepancy on either the independent or team responses involved more than a one-point difference on the rating scale of 0 to 3.

The reliability of the observations is interpreted to be reasonably high. The discussions focussed on whether there was no evidence of the characteristic (0) or minimal evidence (1); whether there was a minimal (1) or regular occurrence (2) of the characteristic; whether there was a regular occurrence (2) or a predominance (3) of the characteristic. The common background of the observers, and the extensive training with the Program Profile Instrument contributed to the commonality of viewpoint exhibited in their responses. The responses reflect teachers' viewpoints to the degree that the observers' experiences as teachers influenced their decisions. The responses reflect theoretical areas because of the extensive training with the instrument and the literature from which the instrument was constructed.

PROGRAM PROFILE INSTRUMENT

Characteristic Number	Theoretical Categories	Tyler's Categories			
		For Teachers		For Students	
		Objectives Experiences Organization	Evaluation	Objectives Experiences Organization	Evaluation
	I. Reading				
	A. Program Focus				
1	1. Sound or Mark Imitation	___	___	___	___
2	2. Word Identification	___	___	___	___
3	3. Word Meaning Recognition	___	___	___	___
4	4. Syntactic Reconstruction	___	___	___	___
5	5. Meaning Reconstruction	___	___	___	___
6	6. Knowledge Construction	___	___	___	___
	B. Comprehension Tasks				
7	1. Subjective Reporting	___	___	___	___
8	2. True or False Questions	___	___	___	___
9	3. Multiple Choice Questions	___	___	___	___
10	4. Following Directions	___	___	___	___
11	5. Missing Elements	___	___	___	___
12	6. Questions about a Passage	___	___	___	___
13	7. Message Recognition	___	___	___	___
14	8. Message Reproduction	___	___	___	___
	C. Levels of Comprehension				
15	1. Literal	___	___	___	___
16	2. Inferential	___	___	___	___

		Tyler's Categories			
		For Teachers		For Students	
Characteristic Number	Theoretical Categories	Objectives Experiences Organization	Evaluation	Objectives Experiences Organization	Evaluation
17	3. Evaluative	___	___	___	___
18	4. Appreciative	___	___	___	___
	D. Purpose for Reading				
19	1. Determined by Text	___	___	___	___
20	2. Determined by Teacher	___	___	___	___
21	3. Determined by Student	___	___	___	___
	E. Inquiry into Print				
22	1. Configuration	___	___	___	___
23	2. Phonics	___	___	___	___
24	3. Structural Word Analysis	___	___	___	___
25	4. Synthetic Word Approach	___	___	___	___
26	5. Dictionary Skills	___	___	___	___
27	6. Syntactic Context	___	___	___	___
28	7. Semantic Context	___	___	___	___
29	8. Pictures, Diagrams, Maps	___	___	___	___
30	9. Environmental Context	___	___	___	___
	II Language				
	A. Unit of Emphasis				
31	1. Letters	___	___	___	___
32	2. Smaller than Syllable	___	___	___	___
33	3. Syllable	___	___	___	___

		Tyler's Categories			
		For Teachers		For Students	
Characteristic Number	Theoretical Categories	Objectives Experiences Organization	Evaluation	Objectives Experiences Organization	Evaluation
34	4. Word	___	___	___	___
35	5. Phrase	___	___	___	___
36	6. Clause	___	___	___	___
37	7. Sentence	___	___	___	___
38	8. Paragraph	___	___	___	___
39	9. Story or Passage	___	___	___	___
40	10. Chapter or Section	___	___	___	___
41	11. Book	___	___	___	___
42	12. Content Area	___	___	___	___
	B. View of Language				
43	1. Language is Innate	___	___	___	___
44	2. Language is Speech and/or Writing	___	___	___	___
45	3. Language is a process based on meaning	___	___	___	___
	C. Meaning				
46	1. Morphemic	___	___	___	___
47	2. Lexical	___	___	___	___
48	3. Synthetic Fusion	___	___	___	___
49	4. Contextual	___	___	___	___
	III. Learning				
	A. View of Learning				
50	1. Mentalistic	___	___	___	___

		Tyler's Categories			
		For Teachers		For Students	
Characteristic Number	Theoretical Categories	Objectives Experiences Organization	Evaluation	Objectives Experiences Organization	Evaluation
51	2. Behavioristic	___	___	___	___
52	3. Cognitive Field	___	___	___	___
	B. View of the Learner				
53	1. Active	___	___	___	___
54	2. Passive	___	___	___	___
55	3. Interactive	___	___	___	___
	IV. Teaching				
	A. Pedagogical Approaches				
56	1. Directed Reading Lesson in Basal Text	___	___	___	___
57	2. Directed Reading Lesson in Content Areas	___	___	___	___
58	3. Content Units	___	___	___	___
59	4. Literature Approach	___	___	___	___
60	5. Technical and Informational Approach	___	___	___	___
61	6. Language Experience	___	___	___	___
62	7. Phonics	___	___	___	___
63	8. Word Recognition	___	___	___	___
64	9. Total Individualization	___	___	___	___
65	10. Partial Individualization	___	___	___	___
66	11. Programmed Materials	___	___	___	___
67	12. Structural Linguistic Approach	___	___	___	___

		Tyler's Categories			
		For Teachers		For Students	
Characteristic Number	Theoretical Categories	Objectives Experiences Organization	Evaluation	Objectives Experiences Organization	Evaluation
	B. Approaches to Reading Problems				
68	1. Differentiation of Instruction	___	___	___	___
69	2. Improvement of Self Concept of Student	___	___	___	___
70	3. Promotion of Social and Psychological Adjustment	___	___	___	___
71	4. Reorganization of the Curriculum and/or Instruction	___	___	___	___
72	5. Reorganization of Personnel of the Classroom, School, or District	___	___	___	___
73	6. Diagnostic: Test Skills Prerequisite to Reading for Deficits	___	___	___	___
74	7. Diagnostic: Test Reading Skills for Deficits	___	___	___	___
75	8. Diagnostic: Test Perceptual, Motor, and Neurological Characteristics for Deficits (Dyslexia)	___	___	___	___
76	9. Diagnostic: Assess Language for Deficit	___	___	___	___
77	10. Search for Technological Solutions to Problems	___	___	___	___
	C. Teaching Role				
78	1. Teacherless Programs	___	___	___	___
79	2. The Teacher as a Scripted Performer	___	___	___	___
80	3. The Teacher as a Technician	___	___	___	___

Characteristic Number	Theoretical Categories	Tyler's Categories			
		For Teachers		For Students	
		Objectives Experiences Organization	Evaluation	Objectives Experiences Organization	Evaluation
81	4. The Teacher as a Source of Wisdom	___	___	___	___
82	5. The Teacher as a Guide and Monitor	___	___	___	___
83	6. The Teacher as a Clinical Information Processor	___	___	___	___
84	7. The Teacher as a Judge and Policeman	___	___	___	___
	D. Curriculum Thrusts				
85	1. Cognitive Process	___	___	___	___
86	2. Technology	___	___	___	___
87	3. Academic Rationalism	___	___	___	___
88	4. Social Reconstruction	___	___	___	___
89	5. Self-Actualization	___	___	___	___

V. Program Report

The following sections provide an opportunity to summarize your findings about the program you examined.

1. On one cover sheet, provide bibliographic information on the materials you used. Identify specific lesson plans or other materials you examined extensively to provide a basis for your conclusions.

2. Use the following format to state your conclusions about the theoretical framework of the program.

The Program Profile Instrument serves as an outline of the report. Use the paragraph as a basis unit of writing. Make each paragraph a concise response to the element of the program profile instrument, exhibiting your conclusions about the program's emphasis or orientation. When appropriate, provide evidence beyond the responses to the Program Profile Instrument to support your conclusion. Describe the extent of occurrence of the evidence. Examples may be used if required. A paragraph outline is provided here. More than one paragraph may be required for a category in some instances. Proceed as you see fit. Use category names as sub headings for sections and paragraphs to permit the reader to refer easily to the Program Profile Instrument.

Use the following criteria for determining the presence of a characteristic in a reading program. The characteristic is present in the teacher's objectives, experiences, organization, if an indication of that characteristic in the program is directly communicated to the teacher by the teacher's materials. Similarly, a characteristic may be indicated when it is indirectly communicated to the teacher by the teacher's materials in that by following the directions of the materials the teacher focusses upon that characteristic in instruction. The characteristic is present in the teacher's evaluation if that characteristic is directly communicated to the teacher through the teacher's materials as an aspect of pupil progress to be tested, checked, or examined. The characteristic may be identified as present if the teacher is to evaluate that characteristic as part of his or her role of active participation in evaluation, beyond administering tests. The characteristic is present in the pupil's objectives, experience, organization, as determined by the program, if that characteristic is directly discussed in the pupil's materials, or required or developed through the materials provided for the pupil. The characteristic is present in the pupil's evaluation materials if the test items or other means of evaluation require the pupil to demonstrate this characteristic.

Write predominantly with independent clauses. Use the present tense. Avoid overuse of adjectives or adverbs. The language of the review may be used when appropriate. Use common words rather than unusual words wherever possible. Keep the syntax simple and avoid convoluted sentences.

Paragraph

1. Introduction to the program: Describe the format, appearance, and any unique aspects of the program that aid in identifying the program that are not included in the bibliographic information.

2. Introduce Category I, Reading: Construct a concise paragraph to ready the reader for the categories in reading.

3. Treat IA, Program Focus

4. IB, Comprehension Tasks

5. IC, Levels of Comprehension

6. ID, Purpose for Reading

7. IE, Inquiry into Print

8. Introduce Category II, Language

9. Treat IIA, Unit of Emphasis

10. IIB, View of Language

11. IIC, Meaning

12. Introduce III, Learning

13. Treat IIIA, View of Learning

14. Treat IIIB, View of Learner

15. Introduce IV, Teaching

16. Treat IVA, Pedagogical Approaches

17. Treat IVB, Approaches to Reading Programs

18. Treat IVC, Teaching Role

19. Treat IVD, Curriculum Thrusts

20. Indicate the general purpose for reading instruction in this program as indicated by materials for the teacher. Refer to Program Profile Instrument responses as needed.

21. Indicate the purpose as indicated by materials for the student.

22. Examine the consistency between the purpose indicated in materials for the teacher and purpose implied in materials for the student.

23. Concluding paragraph. In one or two sentences, state the most outstanding characteristic of the program, the idea that most clearly represents what is unique about this program.

APPENDIX B

Program I

Program Information

A. Series

Smith, Nila B. Be a Better Reader. Englewood Cliffs, New Jersey: Prentice Hall Inc., 1968.

B. Levels Reviewed

Foundations A, B, and C.

Program II

A. Series

Aaron, Ira; Artley, A. Sterle; Goodman, Kenneth; Jenkins, William; Manning, John; Monroe, Marion; Pyle, Wilma; Robinson, Helen; Schiller, Andrew; Smith, Mildred; Sullivan, Lorraine; Weintraub, Sam; Reading Unlimited. Glenview, Illinois; Scott Foresman and Company, 1976-1971.

B. Levels Reviewed

Levels 13, 14, 15, 16, 17, 18, 19, 20, and 21
End of Level Tests

Program III

A. Series

Weiss, Bernard and Hunt, Lyman. Holt Basic Reading Systems. New York: Holt, Rinehart and Winston, 1973.

B. Levels Reviewed

Levels 13, 15, and 15.

Program IV

A. Series

Clymer, Theodore and McCullough, Constance. Reading 360 Program. New York: Ginn and Company, Xerox Corporation, 1970.

B. Levels Reviewed

Grades 4, 5, and 6.

Program V

A. Series

Hughs, Ann; Carus, Marion; Thomas, Nellie; Gurren, Louise; Lebo, Jerome. Open Court Correlated Language Arts Program. LaSalle, Illinois: Open Court Publishing Company, 1975-1767.

B. Levels Reviewed

Grades 4, 5, and 6.

Program VI

A. Series

Stowe, Elaine; Kirkland, Eleanor; Schwartz, Elizabeth; Bamman, Henry (Grades 4 and 5); and Dawson, Mildred; Gardiner, Robert; Gardner, George; Bamman, Henry (Grade 6). Kaleidoscope Reading Series. Menlo Park, California: Addison-Wesley Publishing Company, 1974.

B. Levels Reviewed

Grades 4, 5, and 6.

Program VII

A. Series

Jones, Daisy; Johnson, Kenneth; Simons, Herbert. Reading Metro Series. Beverly Hills, California, Benziger Bruce and Glencoe Inc., 1976.

B. Levels Reviewed

Grades 4, 5, and 6.

PROGRAM DATA

Program Assessments

VARIABLE	AREA	CATEGORY	SUBCATEGORY	PROGRAMS																											
				I				II				III				IV				V				VI				VII			
				T		S		T		S		T		S		T		S		T		S		T		S		T		S	
				I	E	I	E	I	E	I	E	I	E	I	E	I	E	I	E	I	E	I	E	I	E	I	E	I	E	I	E
1	R	A	1	0	0	0	0	1	1	1	1	2	1	1	1	0	0	0	0	2	2	2	2	0	0	0	0	0	0	0	0
2			2	0	0	0	0	1	1	1	1	2	1	2	1	0	0	0	0	2	2	2	2	1	1	1	1	0	0	0	0
3			3	2	2	2	2	1	1	1	1	2	2	2	2	2	2	2	2	2	2	2	2	1	1	1	1	2	2	2	2
4			4	1	1	1	1	1	1	1	1	2	1	1	1	1	1	1	1	2	2	2	2	1	1	1	1	1	1	1	1
5			5	2	2	3	3	2	2	2	2	3	3	3	3	3	3	3	3	2	2	2	2	3	3	2	3	3	3	3	3
6			6	3	3	2	2	2	2	2	2	3	0	3	0	2	2	2	2	2	2	2	2	2	2	1	1	3	3	3	3
7		B	1	0	0	0	0	2	2	2	2	3	3	3	3	0	0	1	1	1	1	1	1	0	0	0	0	0	0	0	0
8			2	1	1	1	1	1	1	1	1	0	0	0	0	0	0	1	1	1	1	1	1	1	2	2	2	0	0	1	1
9			3	1	1	1	1	2	2	2	2	2	2	2	2	1	2	2	2	0	0	0	0	2	2	2	3	0	0	2	2
10			4	2	2	2	2	1	1	1	1	2	2	2	2	1	2	2	2	0	0	0	0	1	2	2	2	2	2	3	3
11			5	2	2	2	2	1	1	1	1	0	0	1	1	1	1	1	1	0	0	0	0	2	2	2	2	2	2	2	2
12			6	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	2	2	2	2	3	3	2	2	3	3	2	2
13			7	2	2	2	2	2	2	2	2	3	3	3	3	3	3	3	3	0	0	0	0	1	1	1	1	2	2	2	2
14			8	2	2	2	2	2	2	2	2	0	0	0	0	3	3	3	3	2	2	2	2	2	2	2	2	3	3	3	3
15		C	1	2	2	2	2	2	2	2	2	3	3	3	3	3	3	3	3	2	2	2	2	2	2	3	3	3	3	3	3
16			2	3	2	2	2	2	2	2	2	3	3	3	3	3	3	3	3	2	2	2	2	3	2	2	2	3	3	3	3
17			3	2	2	2	2	2	2	2	2	3	0	3	0	1	1	1	1	2	2	2	2	1	1	1	1	2	2	2	2
18			4	1	1	1	1	2	2	2	2	2	0	2	0	3	2	2	2	2	2	2	2	1	1	1	1	2	2	2	2
19		D	1	3	3	3	3	2	2	2	2	3	3	3	3	3	3	3	3	2	2	2	2	3	2	2	2	3	0	2	0
20			2	1	2	1	1	1	1	1	1	1	1	0	0	0	0	0	0	1	1	1	1	1	0	1	0	1	0	1	0
21			3	1	0	0	0	2	2	2	2	1	0	0	0	0	0	0	0	1	1	1	1	0	0	0	0	1	0	1	0
22		E	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23			2	2	2	2	2	2	1	1	1	1	3	2	2	2	0	0	0	0	2	2	2	2	2	2	2	2	2	2	2
24			3	2	2	2	2	1	1	1	1	3	2	2	2	3	3	3	3	2	2	2	2	2	2	2	2	2	2	2	2
25			4	1	1	1	1	1	1	1	1	0	0	0	0	2	2	2	2	2	2	2	2	1	1	1	1	2	2	2	2
26			5	2	2	2	2	1	1	1	1	1	1	1	1	1	1	1	1	2	1	1	1	2	2	2	2	1	1	1	1
27			6	1	1	1	1	3	3	3	3	3	2	2	2	1	1	1	1	2	2	2	2	1	1	1	1	2	2	2	2
28			7	2	2	2	2	3	3	3	3	3	3	3	3	1	1	1	1	2	2	2	2	2	2	2	2	3	3	3	3
29			8	2	2	2	2	2	2	2	2	2	1	1	1	1	1	1	1	2	1	2	1	1	1	1	1	1	1	2	2
30			9	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	0	0	0	0	1	1	1	1
31	L	A	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1
32			2	1	1	1	1	1	1	1	1	2	2	2	2	0	0	0	0	2	2	2	2	1	1	1	1	2	2	2	2
33			3	1	1	1	2	1	1	1	1	2	2	2	2	2	2	2	2	2	2	2	2	1	1	1	1	2	2	2	2
34			4	2	2	2	2	1	1	1	1	2	3	2	3	3	3	3	3	2	2	2	2	2	2	2	2	3	3	3	3
35			5	0	0	0	0	2	2	2	2	1	1	1	1	1	1	1	1	2	2	2	2	1	1	1	1	1	1	1	1
36			6	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
37			7	1	1	1	1	2	2	2	2	2	2	1	1	1	1	1	1	2	2	2	2	1	1	1	1	2	2	2	2
38			8	2	2	2	2	2	2	2	2	1	0	1	0	1	1	1	1	2	2	2	2	1	1	1	1	1	1	1	1
39			9	2	2	2	2	2	2	2	2	3	3	3	3	3	3	3	3	2	2	2	2	2	2	2	2	3	3	3	3
40			10	2	2	2	2	2	2	2	2	1	0	0	0	2	2	2	2	2	0	2	0	3	2	2	2	3	3	3	3
41			11	0	0	0	0	1	1	1	1	1	0	0	0	1	0	1	0	0	0	0	0	1	1	1	1	1	1	1	1
42			12	3	3	3	3	1	1	1	1	1	0	0	0	1	1	1	1	2	0	2	0	1	1	1	1	1	0	0	0
43		B	1	0	0	0	0	1	1	1	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
44			2	1	1	1	1	2	2	2	2	0	2	0	2	3	3	3	3	3	3	3	3	1	1	1	1	0	0	0	0
45			3	0	0	0	0	3	3	3	3	3	3	3	3	1	0	0	0	2	2	2	2	0	0	0	0	3	3	3	3

Program Data Table Key:
T = Teachers' Materials
S = Students' Materials
I = Instruction (Objectives,
Experiences, and Organization)

E = Evaluation
R = Reading
L = Language
N = Learning
G = Teaching

VARIABLE	AREA	CATEGORY	SUBCATEGORY	PROGRAMS																											
				I				II				III				IV				V				VI				VII			
				T		S		T		S		T		S		T		S		T		S		T		S		T		S	
				I	E	I	E	I	E	I	E	I	E	I	E	I	E	I	E	I	E	I	E	I	E	I	E	I	E	I	E
46		C	1	1	1	1	1	1	1	1	1	2	3	2	3	3	3	3	3	1	1	1	1	1	2	2	2	1	1	1	1
47			2	2	2	2	2	1	1	1	1	2	3	2	3	2	2	2	2	2	2	2	2	1	2	2	2	2	2	2	2
48			3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	2	2	2	2	0	0	0	0	0	0	0	0
49			4	2	2	2	2	3	3	3	3	3	3	3	3	1	2	1	2	1	1	1	1	2	2	2	2	3	3	3	3
50	N	A	1	0	0	1	1	1	1	1	1	0	0	0	0	3	3	3	3	1	0	1	0	1	1	1	1	2	0	2	0
51			2	1	1	2	2	1	1	1	1	2	3	2	3	1	1	1	1	2	2	2	2	2	2	2	2	2	2	2	2
52			3	1	1	2	2	2	2	2	2	3	1	3	1	1	1	1	1	2	2	2	2	1	1	1	1	2	2	2	2
53		B	1	0	0	0	0	2	2	2	2	0	0	0	0	1	0	1	0	1	1	1	1	0	0	0	0	1	1	1	1
54			2	1	1	1	1	1	1	1	1	2	3	2	3	3	3	3	3	2	2	2	2	2	2	2	2	1	1	1	1
55			3	1	1	1	1	2	2	2	2	3	2	3	2	1	0	1	0	2	2	2	2	1	1	1	1	2	2	2	2
56	G	A	1	2	2	2	2	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	2	2	2	1
57			2	3	3	3	3	0	0	0	0	0	0	0	0	1	1	1	1	0	0	0	0	1	1	1	1	1	1	1	1
58			3	3	3	3	3	2	2	2	2	0	0	0	0	1	0	1	0	2	0	2	0	3	3	3	3	1	1	1	1
59			4	1	1	1	1	2	2	2	2	1	1	1	1	1	0	1	0	3	2	3	2	1	1	1	1	2	2	2	1
60			5	2	2	2	2	2	2	2	2	1	1	1	1	1	1	1	1	1	1	1	1	2	2	2	2	1	1	1	1
61			6	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	2	2	2	2	0	0	0	0	2	2	2	2
62			7	1	1	1	1	1	1	1	1	2	2	2	2	0	0	0	0	2	2	1	1	1	1	1	1	1	1	1	1
63			8	2	2	2	2	1	1	1	1	2	2	2	3	0	0	0	0	2	2	1	0	1	2	1	2	0	0	0	0
64			9	0	0	0	0	1	1	1	1	0	0	0	0	0	0	0	0	1	1	1	1	0	0	0	0	0	0	0	0
65			10	1	1	1	1	2	2	2	2	2	2	0	0	2	1	2	0	1	1	1	1	1	1	1	1	1	1	1	1
66			11	0	0	0	0	0	0	0	0	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
67			12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
68		B	1	1	1	1	1	2	2	2	2	3	3	0	0	0	0	0	0	1	1	1	1	1	0	0	0	2	2	0	0
69			2	1	1	1	1	2	2	2	2	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	2	2	0	0
70			3	0	0	0	0	2	2	2	2	1	0	1	0	0	0	0	0	1	1	1	1	1	1	1	1	0	0	0	0
71			4	0	0	0	0	2	2	2	2	2	2	0	0	2	0	2	0	1	1	1	1	1	1	0	0	0	0	0	0
72			5	0	0	0	0	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
73			6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
74			7	1	1	1	1	1	1	1	1	2	2	0	2	0	3	0	3	0	0	0	0	2	2	2	2	2	2	0	0
75			8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
76			9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
77			10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	0	0	0	0
78		C	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
79			2	1	1	0	0	1	1	1	1	3	3	0	0	0	0	0	0	2	2	2	2	1	1	0	0	0	0	0	0
80			3	2	2	0	0	1	1	1	1	3	3	0	0	0	0	0	0	1	1	1	1	2	2	0	0	1	1	0	0
81			4	0	0	0	0	1	1	1	1	0	0	0	0	2	2	2	2	2	2	2	2	1	0	0	0	1	1	0	0
82			5	1	1	1	1	2	2	2	2	2	2	2	2	3	3	3	3	2	2	2	2	1	0	0	0	1	1	0	0
83			6	1	1	0	0	1	1	1	1	0	0	0	0	1	1	1	1	1	1	1	1	1	1	0	0	1	1	0	0
84			7	0	0	0	0	1	1	1	1	0	0	0	0	0	3	0	3	1	1	1	1	0	0	0	0	0	0	0	0
85		D	1	2	2	2	2	3	3	3	3	3	3	3	3	3	3	3	3	2	2	2	2	2	2	2	2	2	2	2	2
86			2	2	2	2	2	1	1	1	1	0	0	0	0	2	1	0	0	1	1	1	1	1	1	1	1	0	0	0	0
87			3	1	0	1	1	1	1	1	1	2	0	2	0	1	0	1	0	3	2	3	2	1	1	1	1	1	1	1	1
88			4	1	1	1	1	1	1	1	1	0	0	0	0	2	0	2	0	1	1	1	1	1	1	1	1	2	2	2	2
89			5	0	0	0	0	2	2	2	2	1	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	2	2	2	2

Program Data Table Key:
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I = Instruction (Objectives,
Experiences, and Organization)
E = Evaluation
R = Reading
L = Language
N = Learning
G = Teaching

APPENDIX D

Program Readability Information

Fry Readability Levels (3)

Program	Grade Designated by Publisher 4	5	6
I (1)	6	9	9
II (2)	6	6	6
III (1)	5	5	6
IV (1)	6	5	6
V (1)	7	7	8
VI (1)	3	4	6
VII (1)	4	5	6

(1) A passage was randombly selected from the beginning, middle, and end of each grade level offering or book.

(2) A passage was selected at approximately the middle of each book.

(3) Fry, Edward. Reading Instruction for Classroom and Clinic. New York: McGraw-Hill Book Company, 1972.

APPENDIX E

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A great many people contributed to this project. We extend appreciation to all for their contributions and credit ourselves with the shortcomings. We regret that we can not list all who participated, for the list would be long and require complicated research in itself to track down the teachers, students, and librarians in numerous classes and libraries at several universities, the discussants at several professional organizations, and colleagues throughout the scholarly community. To the following people and to those others who were involved but are not noted, we extend our appreciation.

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APPENDIX F

Analysis Tables

Table 1

MEANS PER PROGRAM OF FOURTEEN SUBCATEGORIES

	Program						
Subcategory	I	II	III	IV	V	VI	VII
I. Reading							
A. Program Focus	1.33	1.33	1.75	1.33	1.83	1.21	1.50
B. Comprehension Tasks	1.63	1.75	1.69	1.81	0.75	1.66	1.69
C. Levels of Comprehension	1.81	2.00	2.13	2.31	2.00	1.75	2.50
D. Purpose for Reading	1.50	1.67	1.25	1.00	1.33	0.92	0.75
E. Inquiry into Print	1.33	1.33	1.33	1.11	1.53	1.22	1.61
II. Language							
A. Unit of Emphasis	1.27	1.42	1.27	1.29	1.50	1.27	1.71
B. View of Language	0.33	2.00	1.33	1.17	1.67	0.33	1.00
C. Meaning	1.25	1.25	2.00	1.69	1.50	1.38	1.50
III. Learning							
A. View of Learning	1.17	1.33	1.50	1.67	1.50	1.33	1.67
B. View of Learner	0.67	1.67	1.67	1.33	1.67	1.00	1.33
IV. Teaching							
A. Pedagogical Approaches	1.25	1.67	0.94	0.80	1.19	1.13	0.88
B. Approaches To Reading Problems	0.30	1.00	0.45	0.25	0.40	0.60	0.30
C. Teaching Role	0.43	1.00	0.71	1/07	1.29	0.39	0.36
D. Curriculum Thrusts	1.15	1.60	0.85	1.05	1.35	1.00	1.40

Table 2

MEANS, STANDARD DEVIATIONS, AND F RATIOS FOR ANALYSES OF VARIANCES TESTING DIFFERENCES BETWEEN MEANS PER PROGRAM OF THE TOTAL GROUP OF FOURTEEN SUBCATEGORIES AND SUBCATEGORIES GROUPED WITHIN THE MAJOR THEORETICAL CATEGORIES OF READING, LANGUAGE, LEARNING AND TEACHING

Variable Group	Program								
	I	II	III	IV	V	VI	VII	df	F
Total of 14 Subcategories								6/91	1.49
M.	1.10	1.50	1.35	1.28	1.39	1.09	1.30		
S.D.	0.21	0.09	0.22	0.22	0.16	0.17	0.32		
Reading								6/28	0.26
M.	1.52	1.62	1.63	1.51	1.49	1.35	1.61		
S.D.	0.03	0.07	0.10	0.24	0.19	0.10	0.31		
Language								6/14	1.24
M.	0.95	1.56	1.53	1.38	1.56	0.99	1.40		
S.D.	0.19	0.10	0.11	0.49	0.01	0.22	0.09		
Learning								6/7	2.35
M.	0.92	1.50	1.59	1.50	1.59	1.17	1.50		
S.D.	0.06	0.03	0.01	0.03	0.01	0.03	0.03		
Teaching								6/21	1.17
M.	0.78	1.32	0.74	0.82	1.06	0.78	0.74		
S.D.	0.18	0.10	0.03	0.11	0.15	0.09	0.20		

Table 3

MEANS, STANDARD DEVIATIONS, AND F RATIOS FOR ANALYSES OF VARIANCES TESTING DIFFERENCES BETWEEN MEANS OF SEVEN COMBINATORIAL VARIABLES (P, T, S, TI, TE, SI, SE) REFLECTING AUDIENCE AND PURPOSE ACROSS SEVEN PROGRAMS, df = 6/616

Combinatorial Variable		I	II	III	IV	V	VI	VII	F
P									1.02
	M.	1.11	1.38	1.24	1.19	1.29	1.09	1.24	
	S.D.	0.93	0.82	1.10	1.10	0.82	0.83	1.00	
T									1.03
	M.	1.13	1.38	1.35	1.19	1.31	1.13	1.29	
	S.D.	0.94	0.82	1.15	1.11	0.82	0.82	1.02	
S									1.22
	M.	1.10	1.38	1.12	1.19	1.28	1.04	1.19	
	S.D.	0.95	0.82	1.15	1.11	0.82	0.86	1.06	
TI									1.44
	M.	1.15	1.38	1.46	1.22	1.38	1.15	1.34	
	S.D.	0.95	0.82	1.19	1.13	0.85	0.85	1.03	
TE									0.79
	M.	1.11	1.38	1.24	1.15	1.25	1.12	1.25	
	S.D.	0.95	0.82	1.23	1.20	0.86	0.85	1.06	
SI									1.49
	M.	1.09	1.38	1.16	1.22	1.35	1.03	1.24	
	S.D.	0.95	0.82	1.19	1.12	0.84	0.85	1.07	
SE									1.02
	M.	1.10	1.38	1.09	1.15	1.20	1.06	1.15	
	S.D.	0.95	0.82	1.22	1.20	0.86	0.90	1.08	

Table 4

THEORETICAL DATA REDUCTION SCHEMA

Missions of Reading Instruction

Spoken or Thought Analogue (SA)	Message Reconstruction (RM)	Knowledge Construction (CK)
1, 2, 9, 11, 14, 22, 23, 24, 25, 26, 31, 32, 33, 34	3, 4, 5, 7, 8, 9, 10, 11, 12, 13, 15, 16, 26, 27, 28, 29, 35, 36, 37, 46, 47, 48, 49	6, 7, 8, 9, 10, 12, 17, 18, 26, 30, 38, 39, 40, 41, 42

Views of Language and Learning

Nativism and Mentalism (NM)	Speech or Writing and Behaviorism (SWB)	Meaning Based Process and Cognitive Field (MCF)
43, 50	44, 51	45, 52

Locus of Control of Purpose for Reading

Text (TR)	Teacher (TR)	Reader (RDR)
19, 54, 56, 57, 62, 63, 66, 67, 73, 74, 75, 76, 78, 79, 80, 85, 86, 87, 88	20, 54, 56, 57, 58, 59, 70, 71, 72, 73, 74, 75, 76, 77, 81, 83, 84, 85, 87, 88	21, 53, 55, 58, 60, 61, 64, 65, 68, 69, 82, 89

Table 5A

MEANS PER PROGRAM AND MEANS AND STANDARD DEVIATIONS PER VARIABLE OF NINE COMBINATORIAL VARIABLES: SA, RM, CK, NM, SWB, MCF, TX, TR, AND RDR (SEE CHAPTER 12 FOR DEFINITIONS, P.)

	Program							Means and Standard Deviations Per Variable	
Variable	I	II	III	IV	V	VI	VII	M.	S.D.
SA	1.23	1.07	1.30	1.20	1.45	1.38	1.52	1.31	0.15
RM	1.47	1.70	1.95	1.62	1.34	1.54	1.74	1.62	0.20
CK	1.57	1.60	1.28	1.48	1.22	1.40	1.58	1.45	0.15
NM	0.25	1.00	0.00	1.63	0.25	0.50	0.50	0.59	0.55
SWB	1.25	1.50	1.75	2.00	2.50	1.50	1.00	1.64	0.50
MCF	0.75	2.50	2.50	0.63	2.00	0.50	2.50	1.63	0.95
TX	1.07	0.89	1.17	1.04	1.00	1.01	0.66	0.98	0.16
TR	0.83	1.15	0.70	0.98	1.04	1.00	0.70	0.91	0.17
RDR	0.85	1.75	0.71	0.60	1.21	0.73	1.13	1.00	0.40

Table 5B

ANALYSIS OF VARIANCE COMPARING VARIABLES SA, RM, CK, NM, SWB, MCF, TX, TR, RDR

Source	df	Sum of Squares	Mean Squares	F	P
Among Variables	8	18.742	1.016	5.172	< 0.01
Within	54	10.611	0.197		
Total	62	8.131			

Table 5C

A POSTERIORI RANGES TEST (TUKEY) FOR HOMOGENEOUS GROUPS

	Variable								
Group	SA	RM	CK	NM	SWB	MCF	TX	TR	RDR
1	x		x		x	x			x
2		x	x		x	x			
3				x			x	x	x
4	x	x	x		x	x			
5	x	x	x		x	x	x	x	x
6	x			x		x	x	x	x

Table 5D

ANALYSIS OF VARIANCE COMPARING PROGRAMS ACROSS VARIABLES SA, RM, CK, NM, MCF, TX, TR, RDR

Source	df	Sum of Squares	Mean Squares	F	P
Among Programs	6	18.742	0.202	0.646	NS
Within	56	17.530	0.313		
Total	62	1.213			

Table 6

MEANS, STANDARD DEVIATIONS, AND F RATIOS FOR ANALYSES OF VARIANCES TESTING DIFFERENCES BETWEEN MEANS PER PROGRAM OF COMBINATORIAL VARIABLES REPRESENTING MISSIONS OF READING INSTRUCTION (SA, RM, CK), METAPHORS UNDERLYING LANGUAGE AND LEARNING THEORIES (NM, SWB, MCF), AND LOCUS OF CONTROL OF PURPOSES FOR READING (TX, TR, RDR)

Groups of Variables	Program							df	F
	I	II	III	IV	V	VI	VII		
Missions (SA,RM,CK)									
M.	1.42	1.46	1.51	1.43	1.34	1.44	1.61	6/14	0.41
S.D.	0.02	0.08	0.10	0.03	0.01	0.01	0.01		
Language and Learning (NM,SWB,MCF)									
M.	0.75	1.67	1.42	1.42	1.58	0.83	1.33	6/14	0.42
S.D.	0.17	0.39	1.10	0.33	0.93	0.22	0.72		
Purpose for Reading (TX,TR,RDR)									
M.	0.92	1.26	0.86	0.87	1.08	0.91	0.83	6/14	1.14
S.D.	0.01	0.13	0.05	0.04	0.01	0.02	0.05		

Table 7

INTERCORRELATION MATRIX AMONG VARIABLES SA, RM, CK, NM, SWB, MCF, TX, TR, AND RDR (SEE CHAPTER 12 FOR DEFINITIONS), AND FACTOR MATRIX INFORMATION (FACTOR ANALYSIS PROCEDURES INCLUDED PRINCIPAL COMPONENTS ANALYSIS WITH ITERATIONS AND VARIMAX ROTATION)

Correlation Matrix

	SA	RM	CK	NM	SWB	MCF	TX	TR	RDR
SA	1.00	-0.15	-0.39	-0.50	-0.01	0.15	-0.38	-0.48	-0.23
RM		1.00	0.14	-0.03	-0.38	0.50	-0.02	-0.51	-0.08
CK			1.00	0.45	-0.77	-0.07	-0.55	0.01	0.31
NM				1.00	0.10	-0.32	-0.18	0.50	0.05
SWB					1.00	-0.04	0.49	0.45	-0.07
MCF						1.00	-0.38	-0.20	0.62
TX							1.00	0.05	-0.51
TR								1.00	0.49
RDR									1.00

FACTOR MATRIX INFORMATION

Varimax Rotated Factor Analysis

		Factor			
Variable	Communality	I	II	III	IV
SA	0.768	-0.046	(-0.861)	0.002	-0.156
RM	0.675	-0.124	0.018	0.083	(0.808)
CK	0.971	(-0.882)	(0.430)	0.068	0.062
NM	0.496	-0.199	(0.637)	-0.051	-0.219
SWB	0.846	(0.845)	0.078	0.046	-0.353
MCF	0.884	0.047	-0.242	(0.788)	(0.450)
TX	0.768	(0.676)	0.211	(-0.489)	0.164
TR	0.826	0.222	(0.605)	0.275	(-0.579)
RDR	0.854	-0.157	0.222	(0.871)	-0.143

Factor	Eigenvalue	Percent of Variance	Cumulative Percent of Variance
I	2.453	34.6	34.6
II	2.142	30.2	64.8
III	1.502	21.2	86.0
IV	0.992	14.0	100.0

Table 8

MEANS, STANDARD DEVIATIONS AND F RATIOS OF VARIABLES PER FACTOR THAT EXHIBIT LOADINGS OVER 0.40 (SEE TABLE 7)

									Comparing Programs	
Factor		I	II	III	IV	V	VI	VII	df	F
I	M.	1.30	1.33	1.40	1.51	1.57	1.30	1.08	6/14	0.37
	S.D.	0.04	0.10	0.06	0.15	0.44	0.05	0.14		
II	M.	0.97	1.21	0.82	1.32	1.01	1.07	1.08	6/21	0.46
	S.D.	0.24	0.05	0.28	0.06	0.21	0.13	0.23		
III	M.	0.89	1.71	1.46	0.76	1.40	0.75	1.43	6/14	1.13
	S.D.	0.02	0.43	0.58	0.04	0.19	0.04	0.61		
IV	M.	1.02	1.78	1.72	1.08	1.46	1.01	1.65	6/14	0.82
	S.D.	0.10	0.31	0.57	0.17	0.16	0.18	0.54		

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